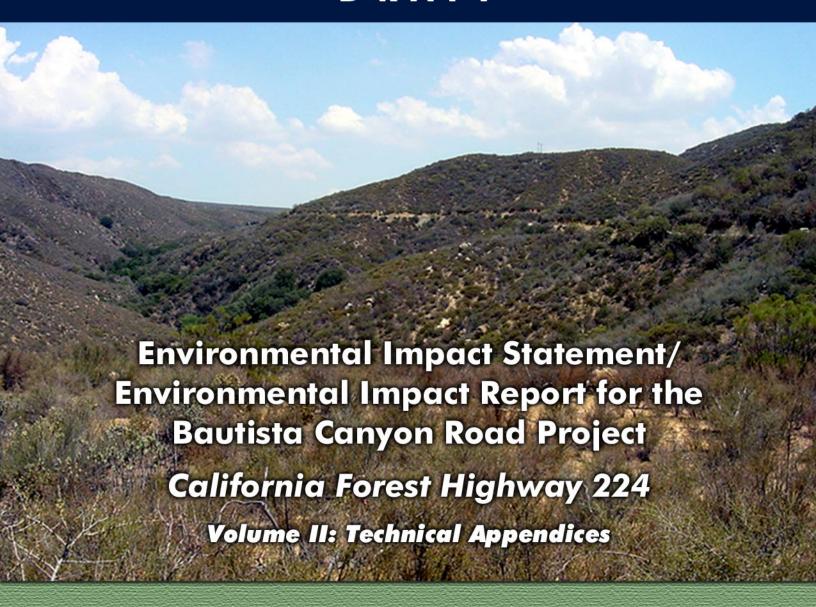
DRAFT



Prepared by:

County of Riverside Transportation and Land Management Agency and the Federal Highway Administration



August 2004



Environmental Impact Statement/
Environmental Impact Report for the Bautista Canyon Road Project

California Forest Highway 224

Volume IIs Technical Appendices

Prepared by:

County of Riverside Transportation and Land Management Agency

4080 Lemon Street, 8th Floor Riverside, California 92502



Central Federal Lands Highway Division 555 Zang Street, Room 259 Lakewood, Colorado 80228 **OFHWA**



August 2004

Appendix A

Notice of Preparation/ Notice of Intent



STATE OF CALIFORNIA

Governor's Office of Planning and Research State Clearinghouse



Notice of Preparation

January 25, 2001

To: Reviewing Agencies

Re: Bautista Canyon Road Project

SCH# 2001011110

Attached for your review and comment is the Notice of Preparation (NOP) for the Bautista Canyon Road Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Mary Zambon Riverside County Transportation Department 4080 Lemon Street, 8th Floor Riverside, CA 92502

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan

Project Analyst, State Clearinghouse

Attachments cc: Lead Agency

Document Details Report State Clearinghouse Data Base

SCH# 2001011110

Project Title Bautista Canyon Road Project

Lead Agency Riverside County Transportation & Land Management Agency

Type NOP Notice of Preparation

Description The purpose of the proposed action is to pave an 8.2-mile segment of Bautista Canyon Road which

currently is an unimproved, substandard dirt road. The main need for this project is to provide the Anza area with specific measures to improve fire protection, law enforcement, and medical response

Fax

times in the event of an emergency situation.

Lead Agency Contact

Name Mary Zambon

Agency Riverside County Transportation Department

Phone 909-955-6759

email

Address 4080 Lemon Street, 8th Floor

City Riverside State CA Zip 92502

Project Location

County Riverside

City Hemet

Region

Cross Streets Bautista Canyon Road

Parcel No. Various

Township Range Section Base

Proximity to:

Highways 371

Airports

Railways

Waterways

Schools

Land Use Unimproved, substandard dirt road.

Project Issues Archaeologic-Historic; Aesthetic/Visual; Flood Plain/Flooding; Water Quality; Growth Inducing; Air

Quality; Toxic/Hazardous; Landuse; Other Issues

Reviewing

Agencies

Resources Agency; Department of Conservation; Department of Forestry and Fire Protection; Office of Historic Preservation; Department of Parks and Recreation; Department of Fish and Game, Region 6; Native American Heritage Commission; State Lands Commission; Caltrans, District 8; Department of Housing and Community Development; California Highway Patrol; Caltrans, Division of Transportation

Planning; Regional Water Quality Control Board, Region 8

Date Received

01/25/2001

Start of Review 01/25/2001

End of Review 02/23/2001

Reclamation Board

Pam Bruner

Office of Historic

Allen Robertson

Protection

Ken Trott

Hans Kreutzberg

Preservation

Resources Agency

Nadell Gayou

sources Agency

California Coastal Elizabeth A. Fuchs

Bill Curry

Commission

Resources Agency

Nadell Gavou

Steve McAdam Dev't. Comm.

Health & Welfare

Wayne Hubbard

eaith & Welfare

ood & Agriculture



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY

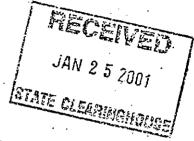
Transportation Department



Director of Transportation

2001011110

NOTICE OF PREPARATION



TO: Robert Prohaska

AMEC Earth &

Environmental

5510 Morehouse Drive

San Diego, Ca 92121

(858) 458-9044

FROM:

County of Riverside

Transportation Department

4080 Lemon St., 8th Floor

Riverside, CA 92502

Subject: Notice of Preparation of a Draft Environmental Report/Environmental Impact Statemen

a threat will be the Lead Agency and The County of Riversion will prepare an envirgemental impact repose IR) for the project identified below. The Department requires your inputes to the scope and constitute of the environmental information that is relevant to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to refer to the Elis repared by the Department when considering your permit or other approval for this project

The Federal Highway Attanine tration of TWA, in cooperation with the San Bernardino Nationa Forest, will be the lead agency in the preparation of an environmental impacts at the read agency in the preparation of an environmental impacts at the read agency in the preparation of an environmental impacts at the read agency in the preparation of an environmental impacts at the preparation of the preparation of

Letters describing the proposed action and soliciting count will be sent to appropriate Federal, State, and local agencies, and to private organizations and citizens. Public scoping meetings will be held on:

> January 30, 2001 at 7:00 p.m. **Anza Community Center** Anza, CA 92539

January 31, 2001 at 7:00 p.m. Valley Wide Parks and Recreation Facility 43935 E. Acacia, Hemet, CA 92544.

Attachment 1

Project Description Bautista Canyon Road

Project Location

The proposed project is the improvement to California Forest Highway (FH) 224, Bautista Canyon Road. The portion that is proposed for improvement begins 10.3 miles southeast of Valle Vista and extends 8.2 miles to a point 3.2 miles northwest of State Highway 371, west of Anza.

Background

Bautista Canyon Road is a 21.7-mile route in Riverside County between State Highway (SH) 74, at the town of Valle Vista, and SH 371, about 1.5 miles west of the community of Anza. The road traverses through the San Bernardino National Forest (SBNF). The route is also designated as Riverside County Road (CR) S5019, Sections B and C. The project proposes to pave an 8.2-mile segment of this roadway, which is currently an unpaved dirt road. The route's functional classification is rural collector.

Bautista Canyon Road provides access to over 40,000 acres of National Forest, Indian Reservation, State, and private lands. It provides access for various forest multiple use functions and links the communities of Hemet and Anza to the southern portion of the SBNF. In 1985 the U.S. Forest Service (USFS) granted Riverside County and U.S. Department of Agriculture (USDA) an easement across USFS lands. Consequently, Riverside County is responsible for maintaining the roadway.

The 8.2-mile segment of the route was recommended for reconnaissance and scoping during the November 9, 1993, California Public Lands Highways (PLH) program meeting. The Reconnaissance and Scoping Report for Bautista Canyon Road (FH 224) was prepared in 1994 as a guide for PLH agencies, which includes the USFS, the California Department of Transportation, and the Federal Highway Administration (FHWA). These three agencies are responsible for administering the PLH program and are collectively referred to as the "Tri-Agencies." Following development of the Reconnaissance and Scoping Report for Bautista Canyon Road, the project was identified for funding and is currently in the project development phase.

Project Description

The purpose of the proposed action is to pave an 8.2-mile segment of Bautista Canyon Road which currently is an unimproved, substandard dirt road. The need for this action is multiple. This segment is the middle portion of a roadway that provides access between the communities of Hemet and Anza. The remaining 13.5 miles of this roadway are paved. The

Robert Prohaska AMEC Earth & Environmental Page 2

A brief project description is contained in Attachment 1. A copy of the initial study has not been prepared because the lead agencies have determined that an EIR/EIS will be prepared for the project.

Due to the time constraints mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your responses to Mary Zambon, Senior Transportation Planner, (909) 955-6759, at the address shown above. Additionally, please provide a point of contact for your agency along with your responses.

Project Title: Bautista Canyon Road Project

Project Applicants: County of Riverside, Transportation Department

Date: January 22, 2001 Signature:

Edwin D. Studor, Administrative Manager

Attachments: Project Description, Project Area Map, Agency NOP Distribution List

AGENCY NOP DISTRIBUTION LIST

FEDERAL HIGHWAY ADMINISTRATION

UNITED STATES FOREST SERVICE

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH- STATE CLEARINGHOUSE

BOARD ASSISTANT TO SUPERVISOR J. VENABLE- COUNTY OF RIVERSIDE

U.S. DEPARTMENT OF FISH AND WILDLIFE

CALIFORNIA DEPARTMENT OF FISH AND GAME

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)

REGIONAL WATER QUALITY CONTROL BOARD (RWQCB)

NATIONAL PARK SERVICE

U.S. ARMY CORPS OF ENGINEERS

FRIENDS OF BAUTISTA CANYON

RAMONA BAND OF CAHUILLA INDIANS

LOS COYOTES BAND OF MISSION INDIANS

SANTA ROSA BAND OF MISSION INDIANS

SOBOBA BAND OF MISSION INDIANS

CAHUILLA BAND OF MISSION INDIANS

RIVERSIDE COUNTY REGIONAL PARK & OPEN SPACE DISTRICT

RIVERSIDE COUNTY CLERK & RECORDER

SIERRA CONSERVATION CENTER- STATE CORRECTIONS DEPARTMENT

RIVERSIDE COUNTY TRANSPORTATION COMMISSION

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

CITY OF HEMET

CITY OF SAN JACINTO

WESTERN RIVERSIDE COUNTY COUNCIL OF GOVERNMENTS

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

CALIFORNIA DEPARMENT OF PARKS & RECREATION

CALIFORNIA TRANSPORTATION COMMISSION

RIVERSIDE COUNTY SHERIFF'S DEPARTMENT

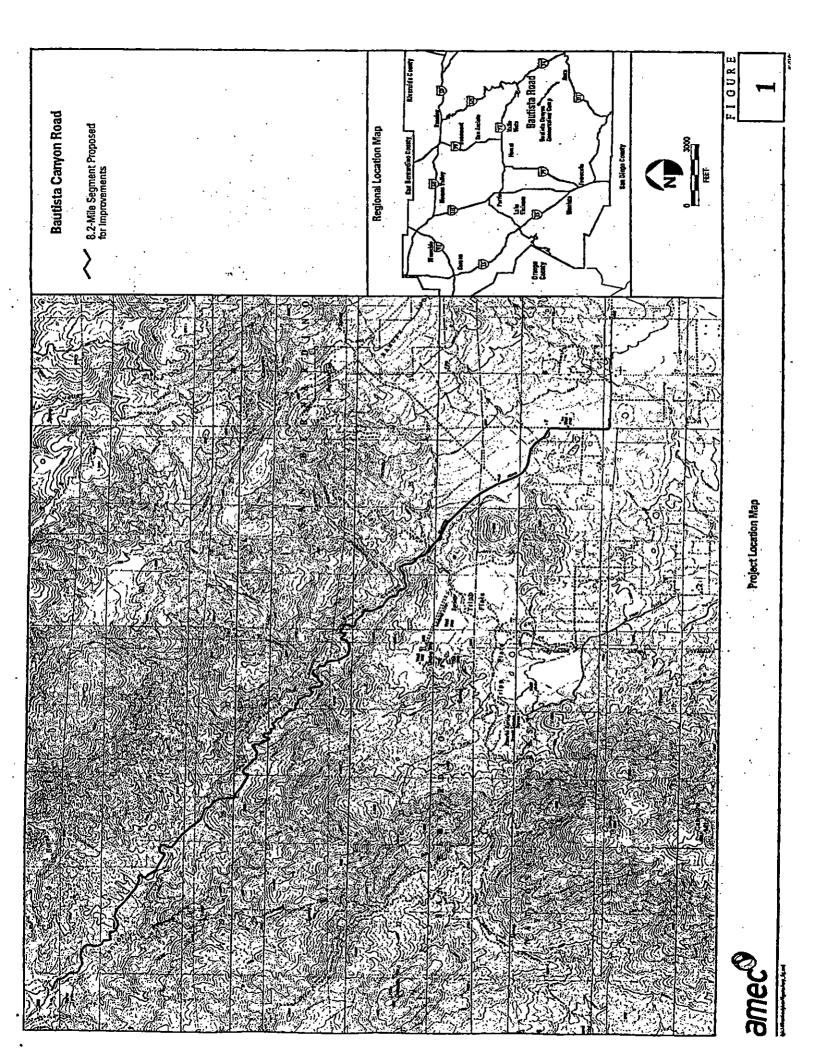
RIVERSIDE COUNTY FIRE DEPARTMENT

BAUTISTA CANYON CONSERVATION CAMP- (CC# 36)

CALIFORNIA DEPARTMENT OF FORESTRY

SOUTHERN CAMP OFFICE- STATE CORRECTIONS DEPARTMENT

ASSEMBLYMAN DAVE KELLEY



Attachment 1

Project Description Bautista Canyon Road

main need for this project is to provide the Anza area with specific measures to improve fire protection, law enforcement, and medical response times in the event of an emergency situation. This segment of the road also constrains the ability of fire fighting crews to suppress wildfires in and adjacent to the Canyon. In addition, the current condition of the 8.2-mile segment of this roadway poses safety, operational, and maintenance concerns.

There are several locations where the roadway is too narrow for vehicles to safely pass; basic roadway geometry is lacking (roadway crown, superelevation, etc.); and numerous horizontal and/or vertical alignment inconsistencies exist, creating limited sight distance problems in several areas. In addition, roadway drainage is poor and road washouts and rock-falls caused by storm water runoff and seasonal flooding at the low-water crossings of Bautista Creek and other drainages occur. Furthermore, the native soil surface is rough and dusty and is difficult to maintain. Riverside County grades the road approximately three times a year, and the roadway surface tends to become dusty and washboarded between maintenance efforts. The dust in the dry season can severely restrict visibility causing a safety concern.

Based on a review of the project by the County of Riverside Transportation Department and the Federal Highway Administration, it has been determined that primary environmental issues to be analyzed in the Draft EIR/EIS will include: archaeological resources, visual impacts, farmland evaluation, floodplain evaluation and risk assessment, biological resources, hydrology and water quality, growth inducement, hazardous materials, air quality and a Section 4 (f) Evaluation.



Central Federal Lands Highway Division 555 Zang St, Rm 259 Lakewood, CO 80228

JAN 0 5 2001 In Reply Refer To: HPD-16

Office of the Federal Register National Archives and Records Administration 7th and Pennsylvania N.W. Washington, DC 20408

Dear Sir:

Enclosed please find three original signed copies of a Notice of Intent to prepare an Environmental Impact Statement. These are bring provided so that they may be published in the Federal Register at your earliest possible convenience.

If you have any questions or comments please contact Mr. Michael Vanderhoof at 303-716-2141.

Sincerely yours,

James W. Keeley, R. E.

Project Development Engineer

Enclosures (3 NOI)

Mary Zambon, Senior Transportation Planner, County of Riverside Transportation
 Department, 4080 Lemon Street, 8 th Floor, Riverside, CA 92501 (w/enclosure)
 Mike Florey, Forest Engineer, San Bernardino National Forest, 1824 Commerce Center
 Circle, San Bernardino, CA 92408 (w/enclosure)

Louis Flores, Caltrans, D8 Local Assistance Engineer, 464 W. Fourth Street, 6th Floor, MS 1030, San Bernardino, CA 92401-1400 (w/enclosure)

bc: Sam Holder, Project Manager

Michael Vanderhoof, Environmental Protection Specialist

yc: reading file

Central file: CA PFH 224, Bautista Canyon

MVANDERHOOF:jm:01/05/01:L\environm\wp\ca224\NOI cover.wpd



DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

ENVIRONMENTAL IMPACT STATEMENT: RIVERSIDE COUNTY, CALIFORNIA

AGENCY: Federal Highway Administration (FHWA), DOT

ACTION: Notice of Intent to prepare an Environmental Impact Statement

SUMMARY: The FHWA is issuing this notice to advise the public that an

Environmental Impact Statement will be prepared for a proposed highway project in

Riverside County, California.

FOR FURTHER INFORMATION CONTACT: Mr. Rick Cushing, Environmental Planning Engineer, Federal Highway Administration, 555 Zang Street, Rm 259, Lakewood, Colorado 80228, telephone 303-716-2138.

SUPPLEMENTARY INFORMATION: The FHWA, in cooperation with San Bernardino National Forest, the California Department of Transportation, and Riverside County, will prepare an Environmental Impact Statement (EIS) on a proposal to improve California Forest Highway (FH) 224, Bautista Canyon Road. The portion that is proposed for improvement begins 10.3 miles southeast of Valle Vista and extends 8.2 miles to a point 3.2 miles northwest of State Highway 371 west of Anza. The FHWA is the lead agency. Riverside County will assist the FHWA in the preparation of the EIS.

Improvements are being considered to provide a safe, all-weather facility for existing and projected traffic demand. Alternatives under consideration include (1) taking no action, (2) the improvement of the existing facility to appropriate County, American Association of State Highway and Transportation Officials (AASHTO), or other acceptable design

criteria, and (3) other alternatives that may be developed during the environmental

process.

Letters describing the proposed action and soliciting comments will be sent to appropriate

Federal, State, and local agencies, and to private organizations and citizens. Public

scoping meetings will be held on January 30, 2001 at 7:00pm in Anza and on January 31,

2001 at 7:00pm in Valle Vista. A public hearing will also be held in the project area.

The draft EIS will be available for public and agency review and comment prior to the

public hearing. Information on the time and place of public meetings and hearings will

be provided in the local news media and by letter to individuals and agencies that have

expressed interest in the proposal.

To ensure that the full range of issues and alternatives related to the proposed action are

addressed and all significant issues identified, comments and suggestions are invited from

all interested parties. Comments and questions concerning the proposed action should be

directed to the FHWA at the address provided above.

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Research,

Planning and Construction. The regulations implementing Executive Order 12372

regarding intergovernmental consultation on Federal programs and activities apply to this

14/01

program.)::-

Issued on: January 4, 2001

Denver, Colorado

Appendix B Scoping Comments

List of Comments

Commenter	Date of Comment
Rosemary Morillo, Soboba Band of Luiseno Indians Manuel Hamilton, Ramona Band of Cahuilla Mission Indians William E. Wolf David G. Kelley	10/22/03 03/07/01 02/28/01 02/26/01
Jack Cram	02/14/01
Peter Odencrans	02/10/01
Diane K. Mitchell	02/06/01
Audrey Morton	02/05/01
Ken Fournier	02/02/01
Allison Renck	02/01/01 02/01/01
Audrey Morton	02/01/01
Gary McMillan Fay Lommis	01/31/01
Bill Wolf	01/31/01
Richard Kelley	01/31/01
Diane Mitchell	01/31/01
Ken Fournier	01/31/01
Earl Waller	01/31/01
Ken Kelley	01/31/01
Howard Rosenthal	01/31/01
Brigitte Kelley	01/31/01
Mr. & Mrs. Jack Reed	01/31/01
Peter Odencrans	01/31/01
Jose Torres	01/31/01
Jack Cram	01/31/01
Mary Reed	01/31/01
Unidentified commenter	01/31/01
Wayne & Phyllis Blackburn	01/31/01
Jose Torres	01/31/01
Craig	01/30/01
Allison Renck	01/30/01
Okey Peck	01/30/01
Jenny Russell	01/30/01
Dennis	01/30/01
Pat	01/30/01
Karen Henschelwood	01/30/01
Jean Wadsworth	01/30/01 01/30/01
Gary Broughton Bob Stevens	01/30/01
	01/30/01
Pat Taylor Bob	01/30/01
Katie Largent	01/30/01
Bill Congress	01/30/01
Unidentified commenter(s)	01/30/01
Paul	01/30/01
Jose Torres	01/30/01
Carl	01/30/01
	3

List of Comments (continued)

Commenter	Date of Comment
Bob Bailer	01/30/01
Jackie Braaten	01/30/01
Ruth D. Stewart	01/30/01
Pat and Christine Taylor	01/30/01
Carol and Jim Cozine	01/30/01
Penny Glassell	01/30/01
Friends of Bautista Canyon	01/30/01

Soboba Band of Luiseño Indians

P.O. BOX 487 • SAN JACINTO, CA 92581 • TELEPHONE (909) 654-2765

October 22, 2003

T. Samuel Holder, P.E., Project Manager US Dept. of Transportation Federal Highway Administration 555 Zang Street, Rm. 259 Lakewood, CO 80228

Dear Mr. Holder:

The SOBOBA BAND OF LUISEÑO INDIANS (hereinafter "Soboba Tribe"), a federally recognized Indian tribe and sovereign government, is formally submitting comments on the California Forest Highway 224, Bautista Canyon Road, hereinafter "the Project".

The Soboba Tribe is not necessarily opposed to this Project, however we have certain concerns in regards to the existence of cultural resources and gathering sites in the area, as well as the potential for unknown cultural resources, and their protection and avoidance. The Soboba Tribe considers the proposed Project area as well as the surrounding area to be Luiseño and Cahuilla territory, and the Soboba Tribe considers any Luiseño and Cahuilla cultural items and any Native American human remains which may be found during the development of this project to belong to the ancestors of either Soboba, Cahuilla or Ramona tribal members. We are hereby requesting that for this Project the Soboba Tribe be named as contact or representative as to the interest of Luiseño and Cahuilla cultural resources and any Native American human remains that are uncovered during the development of this Project.

We have reviewed the Draft Cultural Resource Report completed for the Project. As the report shows, there are significant Cultural resources that exist within the Project area. Although determination has been made for "significance", such determination should be made in consultation with the Soboba, Cahuilla and Ramona Tribes. Given the significant number of sites located in and around the Project area, the Soboba Tribe believes there is a high potential that other cultural resources and sacred sites exist within the Project area.

Given the significant archaeological resources within the Project area, it is the position of the Soboba Tribe that Native American monitors should be required to be present during all ground-disturbing activities conducted in connection with the Project, including further archaeological testing.

According to the California Public Resources Code, § 5097.98, if Native American human remains are discovered, the Native American Heritage commission must name a "most likely descendant," who shall be consulted as to the appropriate disposition of the remains. Given the Project's location in Soboba Luiseño/Cahuilla territory, the Soboba Tribe intends to assert its right pursuant to California law with regard to any remains or items discovered in the course of this Project. And, accordingly, the Tribe further requests that the Federal Highway

Administration and County work with them to draft an agreement, which would address any inadvertent discoveries of cultural resources, including human remains.

While the Soboba Tribe agrees with the conclusion of the report that there are at least 8 sites identified as historic properties within the APE of the Project area, we are consulting with our elders to identify other cultural concerns and will identify further concerns during the consultation and comment opportunities within the final environmental report for the project.

Generally, we agree with the adoption of the Recommendations to Resolve Adverse Effects and we support the agency's adoption of such recommendations with some proposed additions and/or changes. We request that Soboba be an invited signatory to the MOA, and that the MOA contain culturally sensitive means for alleviating impacts such as: treatment of cultural resources uncovered on the site in accordance with tribal customs and traditions, tribal monitoring and the return of ceremonial and sacred items back to the affiliated tribe for proper treatment. Such treatment could include burial in place on the Project site if the Tribe deems it appropriate. We would also like the MOA to include provisions for treatment of any Native American human remains that are uncovered during construction as there are indications of midden areas in some of the sites and because one of the Cahuilla elders had indicated that some burials may be in the area.

With regard to the curation of items at the San Bernardino County museum, we are in complete disagreement with this provision. All ceremonial items, sacred items, milling features, flakes, tools, etc., should be turned over to the affiliated Tribe for appropriate treatment. We strongly believe the treatment of these Cultural and sacred items should be left to the Tribes, to follow our customs and traditions, which would be rightfully ours in accordance with the provisions of NAGPRA.

We are in agreement with the Recommendations to Resolve Adverse Effects that specifically address issues of protecting collecting areas. It is imperative to our Tribe that collection areas remain in a natural setting so that gathering ceremonies are not disturbed by the road alignment, traffic and noise pollution.

The Report states that the project study area is within the Cahuilla traditional territory. While we agree with that to a great extent, we believe the area is also traditional Luiseño territory, as is documented in the report as "environmental characteristics" that are Luiseño, which tells us that some of the cultural material is more indicative of Luiseño culture. Our Tribe is comprised of both Luiseño and Cahuilla decent whose ancestors were known to use and travel in the Project area. We believe this was a travel corridor where both Cahuilla and Luiseño cultural resources may exist and should be taken into consideration when the drafting of the MOA is completed. The Figure 8 on page 21 of the report depicts tribal traditional territories, we do not agree with the territory borders that are depicted on that figure, we believe the Luiseño territory encompasses a larger area and would like the opportunity to provide a more accurate map.

The Soboba Tribe appreciates the opportunity to provide comments on this Project. The Soboba Tribe looks forward to working together with the Federal Highway Administration, the County and other interested agencies in protecting invaluable Native American cultural and archaeological resources found in the Project area. Allowing active tribal participation early in the Project will prevent misunderstandings and help the project move forward smoothly.

If you have any questions, please do not hesitate to contact Kim Yearyean or myself at (909) 654-2765.

RESPECTFULLY,

Boseman Morillo

Rosemary Morillo, Vice Chairperson

SOBOBA BAND OF LUISEÑO INDIANS

Ramona Band of Cahuilla Mission Indians

56310 Highway 371, Suite B

P.O. Box 391372 • Anza, CA 92539 • Office (909) 763-4105 • Fax (909) 763-4325 • E-Mail: ramona41@gte.net

To Whom It May Concern

The Ramona Band of Cahuilla Mission Indians are formally requesting to be on your list of contacts dealing with the Bautista Canyon Road project

Please contact the Ramona Band when drafting your documents, particularly with Section 106. If you have any questions, please call the Ramona Tribal Office at (909) 763-4105.

Sincerely yours,

Manuel Hamilton

Tribal Chairman

RECEIVED

MAR 0 7 2001

Riverside County Transportation Dept. 43945 Mandarin Drive Hemet, CA 92544

909-927-0419

There are two major concerns that I have regarding the Bautista Canyon Road Project.

- 1. The width and condition of Fairview from its most southerly point at Citrus View north to Florida Avenue. The number of 18 wheel gravel trucks on this narrow road has eroded the shoulders of Fairview. Because the trucks are so wide and travel at a high rate of speed, when the gravel trucks and cars pass, both have to move off of the black top, thus eroding the edge of the black top and the shoulder gravel. It is difficult to maintain control of either vehicle, because there is a drop of 8 to 10 inches from the black top to the gravel shoulder. Putting more traffic on Fairview by paving the continuation of Bautista Canyon Road would only make Fairview more hazardous than it is already.
- 2. The \$500,000 that Riverside County is spending on the environmental study for a project that may never materialize is a waste of tax payer money and could be spent on projects that would have a positive effect a much larger number of Riverside tax payers. However, based on a quote in the Thursday, January 13, 2000 Hemet News by Supervisor Jim Venable, "We're going to go ahead with it," it sounds like Supervisor Venable is going to make it happen regardless.

This \$500,000 could be spent solving a much larger problem on Stetson Avenue west of Soboba Street (The Hump). This one block area is extremely hazardous to drive and based on a traffic count on October 8, 1998, there was a combined east west traffic load of 3,264 cars that passed over that 1 block area in 24 hours. Based on the homes that are now being built on the east end of Florida, that count must be substantially higher. This would remove a safety hazard and improve the lives of all the people that need to travel that small corridor.

MAIL-IN PUBLIC COMMENT FORM

BAUTISTA CANYON ROAD PROJECT ENVIRONMENTAL DOCUMENTATION

As part of the environmental review process for the Bautista Canyon Road Project, the project team requests your comments with regard to the scope and content of the environmental documentation. The main goal of the scoping meeting is to allow the public a forum to discuss issues and concerns over the proposed project so that they may be integrated in to the scope of the project.

NAME	DAVID G. KELLEY	DATE:	2-26-01
ADDRESS	3: 44381 Bautista Canyon Road		
	Hemet, CA 92544		
	<u></u>		;
PHONE	3:909/927-1695 or 916/319-2080		
СОММ	ENTS: As a resident who lives on Bau record as opposing the paving of the opposition to paving this road is two	upper portion of Bau	tista Canyon Road. My
	fire hazard it would create as a resu Second, and just as important, is the		
	result of any fire that might occur of In the past, this road has been which is the fire season in this area	en closed to all traf	
	being the U.S. Dept. of Forestry fire patrol for fire hazards. As a result	e trucks that were al t, there has never be	lowed up the road to en a fire in this area,
	and it is one of the last pristine as The lower part of the road was	reas of California th s paved a few years a	at has never been burned go to allow better acces
	to the Dept. of Corrections and Dept. improvement created a major increase	of Forestry work ca in traffic, bringing	mp. Even this modest with it an even worse
	problem: trash. This whole area is the attached pictures I recently too	now being used as a k!) And, the dumping	dumpsite for trash. (No itself creates a very
	real fire hazard because we have no flammable.	idea whether any of t	he dumped items are
	This area is in the San Bernardi jurisdiction of the United States De		
	There is no real need for thi any attempt to do so be stopped.	s paving and I respec	tfully request that
			<u> </u>

MAIL-IN PUBLIC COMMENT FORM

BAUTISTA CANYON ROAD PROJECT ENVIRONMENTAL DOCUMENTATION

As part of the environmental review process for the Bautista Canyon Road Project, the project team requests your comments with regard to the scope and content of the environmental documentation. The main goal of the scoping meeting is to allow the public a forum to discuss issues and concerns over the proposed project so that they may be integrated in to the scope of the project.

NAME: Lack Com	DATE: _2-14-01
ADDRESS: 7 1830 WEST DEVONSHIRE	
HEMET, CAL. 92545	
	į
PHONE: (909) 925-3167	
PHONE: 1707/ 7233707	•
in flow of improving Bate	the people in anya Valley, are
foolish to reject the of	Sportunity. The funds Count
Howard Road was pie	hed as the starting point.
It would be extremely	appensive to get a level
sufile Because of the the	is & down topography. Both
Batista id and Cary !	Ved interest with they 371
Both love Commercial 2	oning. C.P.S. AT Cayud.
	ANCE #348.3476. Both are major
A 1 M	and will probaby always be.
	to about a mile and a helf
	Conyon. Bath hour good
growel or Decomposed gas	
By not using Haward Rd.	world be enough to how
a Rosed Road from HWY-	371 all the stag to Hemet,
Through the Conyon .	written recogness no later than FCD 28 2001

43931 Mandarin Drive Hemet, CA 92544 909/928-3777, ext. 4219 (work) 909/927-4994 (home)

February 10, 2001

County of Riverside Transportation Department Mary Zambon, Senior Transportation Planner 4080 Lemon St., 8th floor Riverside, CA 92502-1090

Re: Improvement to California Forest Highway (FH) 224, Bautista Canyon Road

Transportation improvement is always a high priority among residents. And the potential grant of \$7.5 million from the Federal Highways Administration could improve this infrastructure within Riverside County's District 3. But before I can support and promote this project, I feel several issues need to be addressed.

Related improvements are required before linking the two communities of Valle Vista and Anza: Any increased road traffic because of a new road will stress the existing section of paved road. I am especially familiar with the section northerly from Wilson Mesa along Fairview Avenue to Highway 74. The speed and size of gravel trucks and government vehicles from the conservation camp make this narrow, unshouldered section especially unsafe. Adding to the current problem is the unprotected, open flood channel on the east side of Fairview Ave. which has occasionally been the scene of traffic accidents.

An additional impact needs to be addressed at Mayberry and Fairview avenues. That one intersection--the major ingress and egress for Sprague Heights--is served by four-way stop signs. At the intersection is one existing elementary school, a future site for Lake Hemet Municipal Water District and the eventual commercial use of the former Meadowlark health facilities. Within a short distance are Valley-Wide Recreation and Parks facility, the Sheriff's station, county offices and a newly expanded library. Any increased traffic in that area likely necessitates a traffic light and lane improvements at Fairview and Mayberry.

I also feel serious consideration should be given to a suggestion by Bob Pratte, a columnist for the Press-Enterprise. He wrote about the desirability of a bike path along or nearby the new road. That would improve the recreation potential, and could conceivably help establish a bicycling grid which could eventually connect with the 215 freeway, Diamond Valley Lake and related areas.

If Riverside County takes advantage of the federal funds, mitigates the related traffic impacts in Valle Vista and improves local recreation with a bike or hiking complement, then it would go a long way to justifying the effort. Thank you.

Peter Odencrans

MAIL-IN PUBLIC COMMENT FORM

BAUTISTA CANYON ROAD PROJECT ENVIRONMENTAL DOCUMENTATION

As part of the environmental review process for the Bautista Canyon Road Project, the project team requests your comments with regard to the scope and content of the environmental documentation. The main goal of the scoping meeting is to allow the public a forum to discuss issues and concerns over the proposed project so that they may be integrated in to the scope of the project.

NAME:	Diane K. Mitchell DATE: 2/6/2001
ADDRESS:	43931 Mandarin Dr.
	Hemet CA 92544
PHONE:	(909) 927-4994
COMMENTS:	My primary interest is to avoid or minimize any negative impacts
	which would inevitably occur if the currently unpaved portion of
	Bantista Canyon Rd. is puved.
	1. Environmental impacts: I assume that these concerns will be
	addressed by the projects environmental consultants. I hope they will
	Keep in mind that once fragile flora and fauna are damaged, undoing
	that damage is difficult at best.
	2. Ruval character: This area is a combination of residential,
	agricultural and open land. Everyone here is content with this
	mixture and/are and not eager to see development ruin this
	good balance.
	3. Condition of Fairnew Rd .: This road is ill-suited to handle the
	traffic it currently has. Even a small increase could be quite
	dange rous. There is an open invigation ditch on the east side
	of the road; the road shoulders are crumbling into the sand
	alongside Hem; large trucksfrom the nearby gravel quarry
	(over-old

To be considered during the evaluation process, please return written responses no later than Pho 28, 2001.

Speed along the road all day; and at Muyberry Ave. There is an elementary school which is already plagued by traffic congestion. There must be attention paid to these factors, even it they fall outside the specific purview of this project.

4. Recreation: This is, after all, a National Forest and a	
prime area for hikers and bicyclists, who want to get away	
from cars, why make it easier for cars to bring their noise and	
pollution into this beautiful, natural area? at the very beast	- 1
If the paving must be done, prease	
make it wide eaough to a ccommodate	مدا
a proper bike path.	

County of Riverside Transportation Department Mary Zambon, Senior Transportation Planner 4080 Lemon Street, 8th Floor Riverside, CA 92502-1090

I am also confused by one of the Stated reasons in favor of this project _ easier access for emergency Services. It is my understanding that Anza residents are currently Served by emergency services from Tomecula) Murrieta. I fail to see how Hemet access would be any improvement, especially since Hemet doesn't even have a trauma center. Given all the above considerations, it seems to that this paving project isn't really necessary. If people choose to live in a remote area, should they expect tax-payers' money to make it less remote?

Mank yon, Diane K. Mitchell

MAIL-IN PUBLIC COMMENT FORM

BAUTISTA CANYON ROAD PROJECT ENVIRONMENTAL DOCUMENTATION

As part of the environmental review process for the Bautista Canyon Road Project, the project team requests your comments with regard to the scope and content of the environmental documentation. The main goal of the scoping meeting is to allow the public a forum to discuss issues and concerns over the proposed project so that they may be integrated in to the scope of the project.

NAME-	AUDREY MORTON DATE: 2/5/01
•	29881 WEADHERWOOD
ADDICESS.	LAGUNA NIGUEL, CA. 92677-1945
•	
PHONE	(949) 388-2020
11101121	
COMMENTS:	I Sixcepely Hope THAT THE BANGSTA
	OANYON ROAD PROJECT WILL BU FORWARD
•	AND AS SOON AS POSSIBLE, THE Situation
	AS IT STANDS TS HORRIBLE, DANGEROUS,
	AND LIFE THREATERING, THE PERSONS
	THAT CONTEST THIS PROJECT ARE DOING
	So FOR THEIR OWN PERSONAL ADVANTAGE,
	WHICH IS SUPID, I HAVE OWNED MY
	property (Approx, 160 ACRES) FOR 12 YEARS,
• •	PAID TOP DOUAR FOR IT BECAUSE I WAS
	TOLD THAT BANDS +A ROAD WONLD BE PAVED
	WITHIN A YEAR OF MY PURCHASE, I WAS
·	ALSO TOLD THAT IT WOULD BECOME A 4-LANE
	HIGHWAY TO HEMET, THIS RUXOHASE HAS COST
	ME NOT ONLY IN TREMENDONS AMOUNTS OF MONEY.
	But Also IN EmotionAl Distness. For THE GOOD
	ALSO TOLD THAT IT WOULD BECOME A 4-LANE HIGHWAY TO HEMET, THIS PUNCHASE HAS COST ME NOT ONLY IN TREMENDONS AMOUNTS OF MONEY, But Also IN Emotional DISTNESS. FOR THE GOOD OF THE AREA AND THE PUBLIC PLEASE TO FOR WARD!
To be consider	ed during the evaluation process, please return written responses no later than $\frac{\digamma eb.28}{2001}$ 2001.

MAIL-IN PUBLIC COMMENT FORM

BAUTISTA CANYON ROAD PROJECT ENVIRONMENTAL DOCUMENTATION

As part of the environmental review process for the Bautista Canyon Road Project, the project team requests your comments with regard to the scope and content of the environmental documentation. The main goal of the scoping meeting is to allow the public a forum to discuss issues and concerns over the proposed project so that they may be integrated in to the scope of the project.

NAME:	Ken Fournier DATE: 2/2/01
ADDRESS:	43933 Citras View Dr.
٠.	Hemet, CA 92544-8515
PHONE:	909-927-1368
COMMENTS:	I am in farvor of the project. I
	Lon't be lieve the increase in traffic is
	an important issue. If the sunds gravel
	truck traffic is over by the time this project
	is done, we will be much better off than at present
	I have conducted Bible studies at Bautista Conseration
	Camp for quears every Sanday, and so I'm
	well aware that the present traffic load beyond
	the guarre is light Also I don't think that
• •	paving beyond the Camp will have the slightest
	effect on trash dumping. There's planty of
	affect on trash dumping. There's plenty of apportunity now to dump to low the Comp!
•	L. (Laurner)
	, ,

Prohaska, Robert, F.

From: Michael E. Vanderhoof [mevander@road.cflhd.gov]

Sent: Friday, February 02, 2001 10:37 AM

To: Ali9591@aol.com

Cc: Mary Zambon (E-mail); Prohaska, Robert, F.

Subject: Re: Fwd: Bautista Canyon Paving

Ms Renck,

Thank you for attending our meeting. I am forwarding this email to be included with our public meeting comments. We are aware that the Juan Bautista de Anza historic trail occurs in our project area and it will be considered in our planning acitivies.

If you have any additional questions or comments, please do not hesitate to contact me.

Thank you again,

Dear Mr Vanderhoof,

Thank you for listening to my concerns at the public scooping meeting on January 30, 2001 in Anza. I am concerned that if the paving of Bautista is done, that the Juan Bautista de Anza trail will have no place to travel. If your ER finds the area environmentally senistive, the Forest Service will not want to move the trail and has they have done in the past, with other trails, they close them. Please take this into consideration as this project progresses.

Thank You, Allison Renck email- Ali9591@aol.com

snail mail 52090 Elder Creek Aguanga, California 92536 909 763-0374

Michael E. Vanderhoof Environmental Protection Specialist Federal Highway Administration Central Federal Lands Division 555 Zang Street Lakewood, CO 80228 (303) 716-2141 Phone (303) 969-5903 Fax

TELEPHONE CONVERSATION RECORD

DATE:	2/1/01 TIME: 11:55 am
CONTAC	TINFORMATION:
PHONE:	private property owner on Boedtister Conyon Road. & 160 acres on both side
PROJEC	(949)388-2620 TNO:: 323021000 TASK: 1008
COMME	ints: Lives in Laguna Niquel-unforwablek
	did not 8ex 1000 until 1/31/01
	Does support project. I encouraged
	how to send written comments
,	to Mary. I gave her a
	brief summary of what happened
	at the public modings.
	· · · · · · · · · · · · · · · · · · ·
	a:

Bautista Canyon Road Public Comments Hemet Public Scoping Meeting January 31, 2001

Following are comments noted from the meeting:

1. Gary McMillan

Will there be changes to the northern portion of Bautista Canyon Road?

2. Fay Lommis

There is a school located near Fairview and she is worried about the increased traffic.

3. Bill Wolf

Big money for such a small amount of traffic. Concerned about quarry truck traffic.

4. Richard Kelley

It is just as fast to go to Temecula for emergency services from Anza.

5. Diane Mitchell

Increased traffic a big concern.

6. Ken Fournier

Does not think 400 ADT is accurate measure of traffic.

7. Earl Waller

Concerned over quarry truck traffic.

Questioned design speed vs. speed limit.

8. Ken Kellev

Is this a done deal? Impacts to the canyon have increased since the lower portions have been paved. There is an increased amount of dumping in canyon. That will not change with this new paving project – it will increase.

T&E species – will the project get "waivers" from the resource agencies to be able to build the project?

9. Howard Rosenthal Rosenthal

- Mentioned organizing opposition to project.
- Have long-term traffic studies been done to determine the regional traffic impacts?
- Existing roadways are already inadequate to handle traffic don't add additional traffic to these poor conditions. He wants surrounding roadways to

first be improved prior to paving Bautista Canyon Road. He wants the County to commit to saying they will consider this.

10. Brigitte Kelley

The citrus orchards are in an agricultural preserve — cannot abandon the operations so easily. They harvest three months out of the year and this is difficult due to truck traffic from the quarry operation up the road. These trucks from the quarry operation drive at dangerously high speeds on Bautista Canyon Road.

11. Jack Reed

Who wanted project?

12. Peter Odengrad

\$7.5 million a lot of money for this road. How were these funds appropriated?

13. Richard Kelley

What is the project support in Anza for this project?

- 15. Jose Torres Friends of Bautista Canyon.
 - On January 12, 2000 attended a meeting held by Supervisor Venable and the Supervisor said there would be minimal change to the road alignment. Concerned over 25/35 mph design.
 - This improvement will increase the amount of dumping in canyon.
 - There is a 1975 EIR for the lower portion of the paved road available.
 - The maintenance crews are always widening the road when they do repair work.
 - Brush clearing is currently occurring for the survey work being conducted for the aerial photography to be conducted.

16. Jack Cram

Wants the paved road.

17. Howard Rosenthall

Wants registered voter surveys conducted for Valle Vista residents.

18. Mary Reed

- Concerned about citrus growers that this project will scare them away.
- Concerned about increased traffic. Also about gravel trucks from quarry they drive dangerously on road.

19. Ken Kelley

Concerned about trash dumping.

Concerned about fire hazards; feels that more traffic will increase fires.

20. Unknown commentor

Who is in support of project?

21. Diane Mitchell

Has money been set aside by FHWA for the project?

22. Jose Torres

Will trucks that ship potatoes from Anza be able to use the improved Bautista Road?

Bautista Canyon Road Public Comments Anza Public Scoping Meeting January 30, 2001

At the end of the scoping meeting a petition signed by 162 people against paving Bautista Canyon Road was submitted to the County of Riverside. Following are comments noted from the meeting:

1. Craig

Turnouts for passing are needed on new road. The proposed 25 miles-per-hour speed limit is too slow; therefore, passing areas are necessary.

2. Allison Renck

Juan Bautista Trail – concerned that there will be no dirt trail for hikers or horseback riders.

3. Okey Peck

Will big heavy trucks be allowed on road?

4. Jenny Russell

Read a comment letter she prepared that addressed many issues on why the road should not be allowed to be paved. Turned in copy of letter at end of meeting.

5. Dennis

Increased motorcycle use will increase environmental impacts to trails that are used by the OHV. This needs to be assessed in the environmental documentation.

6. Pat

Who is paying the bill for the road – local taxes? Who claims ownership of the project?

7.Karen Henschelwood

Who will respond to accidents on the road?

8. Jean Wadsworth

Wanted to make sure everyone knew that a portion of the roadway was along Howard Road. The whole project cannot be described as Bautista Canyon Road.

9. *Gary* Broughton

Police/fire access an issue. CDF said they would not use this roadway when paved. Does not believe safety will be improved by the project.

10. Bob Stevens

From Flying "W" Ranch. Will 90-degree turns be straightened with implementation of this project? Will speed limits on the road be enforced? Does not believe that the project will result in faster emergency response times.

11. Pat Taylor

Response times of emergency vehicles will not change. Rick responded that the County is not stating that there will be quicker response times.

12. Bob

There should be designated family picnic and day camp areas along road.

13. Craig

Is the project team aware of fiber optic lines along road?

14. Katie Largent

Concerned about increased traffic and safety.

15. Bill Congress

Cut through traffic going to Palm Springs will use this new paved road, increasing traffic through the Anza area.

16. Unknown commentor

Will the county use eminent domain to purchase property in needed right-of-way?

17. Karen Henschelwood

She thinks medical emergency services will be taken away from Anza. Who is behind this road?

18. Paul

Paul has been in the area for 45 years. When he came a friend told him that he had paperwork saying that the road has been planned to be paved for 45 years prior to that.

19. Unknown commentor

Will there be somebody to maintain road? Current roads are not being maintained.

20. Jose Torres

Friends of Bautista Canyon – there will be growth-inducing impacts with paving the road. Concerned about sensitive species in canyon, trash dumping, and creek crossing at MP 12.1.

21. Carl

A petition with 1500 signatures in favor of the project had been submitted to

Supervisor Ceniceros in the past.

22. Bob Bailer

Supervisor Veneble promised the road would be completed in 2000.

23. Unknown commentor

Concerned with property at Bautista Canyon Road and Howard Road. In 1988 was told that "racetrack on County right of way".

24. Unknown commentor

What will the impact to Tripp Flats Road be?

25. Unknown commentor

Start project on the Anza end first, including Tripp Flats. This would afford a better opportunity for transit since buses won't travel on dirt roads.

FRIENDS OF BAUTISTA CANYON P.O. BOX 390243, ANZA CALIF. 92539

JANUARY 31, 2001

FROM: JOSE TORRES

RE: BAUTISTA CANYON ROAD

Why has construction started before EIR is completed?

- Widening road
- Clearing brush and endangered plant species.
- Who is monitoring construction?

BAUTISTA CANYON ROAD PROJECT ENVIRONMENTAL DOCUMENTATION JANUARY 30 AND 31, 2001

NAME: Allison Renck
ADDRESS: 52090 Elder Creek
Aguanga, Ca. 92536
PHONE: (969) 763~0374
COMMENTS:
My major concern is regarding the Josen Bautista
de Anza National Historic Trail. With the build
4 paving of the road I'm afroid the trail
will become a road easement and be lost
to hikers & equestrians. Forest service may
not want to relocate trail does to
anvironantal constravirs. We cannot lose this
trail.

BAUTISTA CANYON ROAD PROJECT ENVIRONMENTAL DOCUMENTATION JANUARY 30 AND 31, 2001

NAME: Cache Braaten
ADDRESS: P1, By 391065
34375 Ylasgow Rl
PHONE: 909-763-0939
COMMENTS:
I was it a meeting for Boutista
Canjon Road Praject. a question was
asked of Mr. Venable- stating that
Wilson Valley Rk was in disrepair.
but their were no nomes for
repairs Se in my thinking takeres well
be no marin to be a set later of as
be no moneen to regain pat bakes for Bentisty Pank your
heeld spann you

BAUTISTA CANYON ROAD PROJECT ENVIRONMENTAL DOCUMENTATION JANUARY 30 AND 31, 2001

NAME: Mr. & Mrs. Jack Reid	
ADDRESS: 43730 Citrus View Dr.	
Hemet, CA 92544	-
PHONE: (909) 927- 3960	
COMMENTS:	
we feel that improvement	-
of Bautista Canyon Road will bring	-
a lot of added traffic to Fairvie	ىزىدى
Ave, which is already in need of	-
improvement. This problem should	ہ۔ط
addressed before any completion	2 f
the proposed project.	-
	-
	_
	-
	_

Senior Transportation Planner County of Riverside 4080 Lemon St, 8th Floor Riverside, CA 92502 Project Title: Bautisa Canyon Road Project Wayne Blackburn & Phyllis Blackburn Joint owners of Property along Bautista Canyon Road are in favor of the masaid improvements to Bautisa Canyon Road. Wayne Blackburn Wayne Blackburn Phyllis Blackburn Phyllis Blackburn Owners of the South Easterly Grner at the end of amec Map Figure 1

To Mary Zambon;

P.O. Box 5244 Hemet, Ca. 92544

January 30, 2001

Mary Zambon County of Riverside Transportation Department 4050 Lemon Street, 8th Floor Riverside, California 92502

Ms. Zambon:

Bautista Canyow Road Project

I have been asked to give my input on this project since I own property on Bautista Canyon Road near Hwy. 371. The paving of 8.2 miles of Bautista Canyon Road to connect to the present. improved portions of the road will be a benefit for Anza to better access to the Hemet-Sanjacinto Valley, saving time and mileage, but it will cause more traffic and with that more upkeep and repair required. Land owners living along the road will notice more noise and traffic to contend with besides air polution. So the project will have it's plusses and minuses.

Sincerely,

Kuth D. Stowart

Ruth D. Stewart







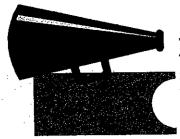
From a concerned family of Anza Property Owners.

Pat and Christine Taylor 51031 Deer Mtn. Way Anza Ca, 92539

fo BOX 391637 909763 4918 CEQQICATHS+ANTONS, COM







The following document was created by Pat Taylor of Anza, Ca 92539. The principle scope of this document is to convey not my personal beliefs and fears in regards to the paving of Bautista Canyon Road, but also the more factual and what should be construed as the common sense surveillance of facts that the proposed Bautista Road project poses to those that live in both Anza and Valle Vista areas.

Date: 01-30-01

The Truths/Half-truths and Outright Lies!

Anza could see an economic improvement/gain: As a business owner in Anza, I seriously doubt that the paving of Bautista Canyon Road would improve retail sales and or for that fact Real Estate sales in our valley above what we normally witness currently.

Why don't I believe economic growth would occur? Consumer patronage from by and large the overwhelming majority of Anza residents is very low, the reason for this is due to the power of the corporate advertising dollar spent by large stores.

We also have a basically jobless society when you look at our per-capita populace. **Example:** My wife and myself own a company company in Anza, Earth Stations Unlimited We tried selling TV's in the Anza valley for almost 3 years. Even though the name-brands and models we carried at our store were priced lower than the brand-names and models offered at the largest competitors, and we advertised full page ads that we really couldn't afford locally, people still went off of the hill in search of their TV sets. This cost our company dearly and we were forced to basically sell the merchandise at absolute giveaway prices that were FAR below our actual dealer cost.

Economic Growth Closing Statement: I just don't see where or how economic growth would come about from the paving of Bautista Canyon Road, if economic growth hasn't come from Temecula or Palm Springs, I completely fail to see why or how economic growth would come from a retirement community such as Hemet.

Faster Police/Sheriff Response: It is impossible to have a faster response coming up Bautista Canyon Road due to the mileage difference from substation to metered start point in contrast to the response time of the Sheriffs from Lake Hemet Substation. (see Mileage Section).

Added fire support and easier access during time of emergency: The likely-hood of fire support coming from the Hemet/Valle Vista area is very slim at best. I have witnessed in the fires of past, most all outside support comes from outside of California because our own states fire protection infrastructure is usually taxed beyond belief.

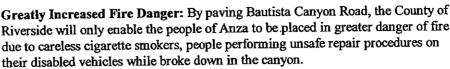
The likely-hood of Hemet or Valle Vista sending a city fire support crew is slim to none also as cities cannot afford to leave themselves unsupported or protected for another communities peoples.







Date: 01-30-01



Overwhelming increase of illegal dumping/litter: In the past 8 months I have personally noticed an increase of garbage dumping in the Bautista Canyon Road corridor. Dumping is occurring at all regions of the corridor. The remoteness creates a sense of security for those wishing to dump unwanted refuse in the canyon, and the people doing the dumping are not just from Anza, I see my fair share of illegal refuse on the Valle Vista end of Bautista Canyon Road too

Increased traffic into ill prepared roadways: The paving of Bautista Canyon Road would obviously increase traffic not only on Bautista Canyon Road, but roads such a s Tripp Flats, Carry, Mitchell in the Anza Valley alone (this traffic would bring more roadside garbage alike).

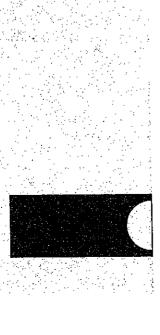
Property Taxes would rise!!: No government gives it's people anything for nothing as promised repeated times by Mr Venable. Anza and Valle Vista Property owners would no doubt see an increase in property taxes within 18 months max post construction of Bautista Canyon Road

Adventure Pass requirement: Once Bautista Canyon Road is paved the US Forestry will invoke the ridiculous Adventure Pass on Bautista Road. Why is it that Riverside County, which just last year asked that the US Forestry revoke the ludicrous Adventure Pass is now partnering with the US Forestry in this effort to pave Bautista Canyon Road?

It seems that Riverside County's plea to the US Forestry to revoke the Adventure Pass was nothing more than rhetoric aimed at duping constituents into thinking the County was on their sides.

History would be erased: Bautista Canyon Road is a piece of Anza's history, like it or not!

Wildlife disrupted: The disruption to wildlife would be immeasurable, but our politicians would certainly try to minimize this statement with unfounded facts as usual.



The Paving of Bautista Road



Mileage Section

Date: 01-30-01

Sheriff Substation Mileage:

Mileage Note: ALL mileage begins at the front doors of the Anza Valley Town Hall and is ended at each respected substation.

Level of Danger Note: The level of danger referred to in this statement is consid-

ering the safety of both Citizens and the emergency equipment/personnel.

Average Speed Note: The average speed mentioned below pertains to the speed

driven while mileage facts were gathered by myself.

Safe Maximum Speed Note: The safe maximum speed is merely an estimate of the maximum speed that the roadway in question may allow an emergency vehicle to travel enroute to any incident

Substation 1 (Lake Hemet)

Start Mileage: 45951 End Mileage: 45964 Lapsed Mileage: 13 Miles

Start Time: 09:17 End Time: 09:33

Lapsed Time: 16 Minutes Traffic Condition: Light

Weather Condition: Cloudy/Dry

Level of Danger: Average

Average Speed Estimate: 52MPH Safe Maximum Speed: 75MPH

Substation 2 (Valle Vista) Start Mileage: 46026 End Mileage: 46047 Lapsed Mileage: 21 Start Time: 08:58 End Time: 09:37

Lapsed Time: 39 Minutes

Weather Condition: Clear/Breezy

Level of Danger: High Average Speed Estimate: 40 Safe Maximum Speed: 35-40MPH



BAUTISTA CANYON ROAD PROJECT ENVIRONMENTAL DOCUMENTATION JANUARY 30 AND 31, 2001

NAME: Card Cozene & Jon Cozine
ADDRESS: P.O. Brx 390663
59371 Beunt Valley Road anga 92536 PHONE: 909 763-2089
PHONE: 909 763-2089
COMMENTS: We Lave commented on previous
to the paving of Buttesta. We feel we
need another route out of town. We
frabibly rosuldn't use it very often, but the prospect of saving.
gas and time is appealing- It well he of benefit to the Vational Fount
Service and our comergesey service

BAUTISTA CANYON ROAD PROJECT ENVIRONMENTAL DOCUMENTATION JANUARY 30 AND 31, 2001

NAME:	Genny Stage Il
ADDRESS	: Bo Bn 39082
· · _	anga 92539
PHONE:	909 763 2128
COMMEN	
_	This is the first meeting
	my vice to the few attending who are
ADDRESS: GO BO 39082 QUYA 92539 PHONE: 909 763 2128 COMMENTS: Alis is the first meeting) Chave attended. I would like to add my voice to the few attending who are auxious to see this project completed. G.S. Any extra # or asplict -?	
	pare Sa Can as well - my car
	would greatly appreciate it.
_	Thanks to all for a very informatione
_	presentation.
ADDRESS: BO BD 390BQ Quya 2539 PHONE: 909 763 2128 COMMENTS: Alia is the first meeting Share attended. I would like to add my voice to the few attending who are anxious to see this project completed. P.S. any leptra & or asphaled? Place Oblany as well - my car would greatly apprepriate it. Thanks to all for a very informative	
_	· · · · · · · · · · · · · · · · · · ·
·	

FRIENDS OF BAUTISTA CANYON P.O. BOX 390243, ANZA CALIF. 92539

JANUARY 30, 2001

RE: Bautista Canyon road EA.

Once again there is movement to pave Bautista Canyon Road. At the AVMAC meeting in Anza on January 12, 2000 Supervisor Jim Venable Stated that he was going to use federal money form the US Forest Service to pave the road. He also stated that there would be minimal realignment to the road and top speed would be thirty five miles an hour. At this time he stated there is no money for maintenance to keep the road in good repair.

This project has us most concerned because of the impact it will have on the canyon, the wildlife species that live along the creek and the growth inducing effect this will have on the community of Anza. Bautista Canyon has become a dumping site for trash, with easier access this will more than likely increase. Another concern is the main creek crossing; it is susceptible to flash flooding during storms. In the ten years that I was driving Bautista Road twice a day I saw six to eight feet of water crossing the road at times. The crossing on the North end of Bautista Road has been damaged by flash flooding numerous times through the years. Crews repair it from the conservation camp and sometimes by the county road department. When these repairs are being done it takes heavy equipment and this is where our concern lays. This area of the upper creek crossing unlike the lower crossing, is site to willows, mule fat, cotton woods, coastal sage and nesting site to many birds including vireos, gnatcatchers and flyctchers in the spring. With this type of equipment there will be damage done to this sensitive environment and catastrophe disruption to the wildlife in the area.

- We would like to know if the USFS and Riverside County Dept. of Transportation will be consulting with US Fish and Wildlife Service and the Calif. Dept. of Fish and Game in pursuant to the Federal and State Endanger Species Act?
- Will those consultation be included in the environmental document and sent out for Public review?
- Will a joint NEPA and CEQA document be done and when will it be available for public review?
- What survey will they be doing to determine the impact of endanger species?
- We would like to participate in the NEPA, can you notify us at the address above?
- Is this meeting your Notice of Preparation of a Environmental Document?

A PETITION TO HALT THE PAVING OF BAUTISTA CANYON ROAD

- 1. Potential crime increases in an area that has limited police presence.
- 2. Added traffic along a proven dangerous road.
- 3. The risk of unregulated populated expansion in a sensitive rural area.
- 4. Added pollution in the canyon.

Print Name	Signature	ADDRESS
Janet Wells	Janet Wells	3910 Anta Texibili Anta
		36405 mitchell, Kding
i e		39605 Howard VRd.
1		42358 Rivedale Da.
Sordon NAGY	Hardan Jos.	18445 dohnston
		45550 Huy 311 AGUHAGA
Rose Taylor	coe Taylor	SERG LOCUST PP ArCA
Muty Van Ha	mistymath	56026 Bonley RD
l //	1	P.O.Box 390633 ANZE
I	\	to 8x390703 Anza
.1	1 1	P.O. Box 390903 - anya

A PUTTHON TO HALT THE PAVING OF BAUTISTA CANYON ROAD

- 1. Potential crime increases in an area that has limited police presence.
- 2. Added traffic along a proven dangerous road.
- 3. The cisk of unregulated populated expansion in a sensitive rough area.
- 4. Added pollution in the canyon,

-				
Print Name	Signature	ADDRESS		
Charles Spake	Charles	POBON 390174 ANZACA Old FERRUST BOAD		
11	(inder agree	3660) 1000 1136		
1 6 2 2 1 1	Sout rabial	ANZA CA 92539 BUUS MACKELL RD		
		ANZS, CA 92839		
Raymond Hogue	Naymond Hogo	P.O. BOX 390319 ANZA CA 92539		
GREG SANDLINE	y f	POBOX 390304 POBOX 390304		
MEZISSO SIVIERELD	Raymond Hoga (Ships Hoga)	ANZAKA, 90539		
	Common Homen	Anza (a 92539		
Levill LINI		39453 Cary Hd		
	I ffell	anga / Cn 92539		
CHERYL CONLES REED	Cherffates Lack	3193 Regil au m. Poby 390351 ANIA, CA (2539 51350 Deer Winy		
Justin Odon	Justin	51350 Deer Winy Anza, CA 92539		
	2-9	55786 PINE TYEE 2N		
DEWN'S MERENY	Bel	ANZA CA 92539		
Skid Rov	V 1311 m	as here and		
Skid ROW 1911/ was here				

A PETITION TO HALT THE PAVING OF BAUTISTA CANYON ROAD

- 1. Potential crime increases in an area that has limited police presence.
- 2. Added traffic along a proven dangerous road.
- 3. The risk of unregulated populated expansion in a sensitive rural area.
- 4. Added pollution in the canyon.

	·		
Print Name	Signature	ADDRESS	¥.
Donna Wagener	Depra / Degon	POBOX 390045 HAZA CA	•
Mary cochran	Mary Cochias	POBOX 390748 anzaCa	W.A
scott Holmes		44450 Lepracheur La	KIG()
PHRIS EUARD	Chedubis	3895 Windy Holl LN. Augs	
Doca Jale	Our Deer	PO Box 84 Aguange	2536
Maria Lerris	Maria Terris	P.O. BOX 39102 B AMZA, CA	.92539
FRANK GORZAM	Grank Jorging	PB BOX536 FDYKLLIKD CA.	92549
BOB Varner	Bellam	47730 Lee Mail agum	992536
Judyful	Character	58581 Hony 371	MZA.
		38701 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1) *** ***
Beylong	Bury	RO BUSY, fallbrothica De	%

A PETITION TO HALT THE PAVING OF BAUTISTA CANYON ROAD

- 1. Potential crime increases in an area that has limited police presence.
- 2. Added traffic along a proven dangerous road.
- 3. The risk of unregulated populated expansion in a sensitive rural area.
- 4. Added pollution in the canyon.

Print Name	Signature	ADDRESS
MARK DESSAUL	E granking.	CARROT LN. AGUANGA CA-92539
DENN'S C. LL'Lau	Dergit Fulto	36805 MURRAY Will'E GNZA
Milie Anderson	NILL	1, Box 340678 Anza CA 9283 9
James 1	And the	Po Bx 39116 8
JANET ENTZAGNEER	Jane Entrange	Box 391040
ROBERT LATINGER	Robot Total	P.O. Box 39/042
JANICE CASTRO	Janusta	P.O. BOX 391183
HELEN HENDERSON	HeliAkraleisin	PO. Pax 1534 Lolyllineld
JAMIE PAUI	James Pacel	39100 AMZARO
Cristal Otteson	Curta Oblica	39100 ANTO Rd
(COLEDAN)	Kispell	16/301 TRIPPFIATIS

A PETITION TO HALT THE PAVING OF BAUTISTA CANYON ROAD

- 1. Potential crime increases in an area that has limited police presence.
- 2. Added traffic along a proven dangerous road.
- 3. The risk of unregulated populated expansion in a sensitive rural area.
- 4. Added pollution in the canyon.

Print Name	Signature	ADDRESS	
Many Librarian	Ming Land.	48108 Rock Cayor Why agen	eya Cin
Rica Moh		54280 Mitchell RU ANDA	92539
INCY BIZANTEN		54375 GLASGOWRD. PUZA	
St= Hahr	3	POBy 1027 Lapluis	pcalit
Swell PARIS	Sewel Tr. Paris	54410 BAUTISTARD. ANZX,	24.92539
Bill Paris	1//	54470 Bautista Rd Anza 49045 PREPILNESS	92539
RICH LOGER!	RIO	49045 PREAKNESS 14NZA 92539	
	Jaguelin to Braation	54375 Hasyow Ad. angs. a 92537	
Worry Wolf	1	59946 Herse Compon Rd Mounton Center, OA 92561	
and the second		390921 FAZA CA 92537	
RIBERT STEVE	Robert Steven	37475 AURORA LAME ANZA CA. 92539	

A PETITION TO HALT THE PAVING OF BAUTISTA CANYON ROAD

- 1. Potential crime increases in an area that has limited police presence.
- 2. Added traffic along a proven dangerous road.
- 3. The risk of unregulated populated expansion in a sensitive rural area.
- 4. Added pollution in the canyon.

Print Name	Signature	ADDRESS
L.A.KEN	J. Oiken.	54400 BAWTOTA
Sy Brockway	Aborton	Des Assentation.
Ro, Govern	Rholl	37755 BAUTISTA
1 1/	Lee whitman	59845 AnzAnitA
less Privalk	fees Rinalo	56-466 LUROTE
Arnold V. Acosto	free v. Lt	4947 Lacalandria Wy LA, CA 8005
John Hondill	Hempliell	SBOY WAVE M QUARTE Hell 93536
Jorge C-Schar	Page / Solum	55240 mitchel Road-
CELIS CHROWN	11 F 1 - 1	7174 TOUFIC TR
fortony		
Selones		80 Box 390243 Anza, Ca

A PETITION TO HALT THE PAVING OF BAUTISTA CANYON ROAD

- 1. Potential crime increases in an area that has limited police presence.
- 2. Added traffic along a proven dangerous road.
- 3. The risk of unregulated populated expansion in a sensitive rural area.
- 4. Added pollution in the canyon.

Print Name	Signature	ADDRESS	
Julia Staped	Julia Street.	D.O. KOX 39051/ ANTA	683 X
1	Bell Paris	Po. Box 310349 Anza Ca 925	39
BRIANEThio	B. Ser	PO Box 391272 ALLZACO.925	9
HERBED STAL			L
Parol A.Stalmar	Carol A Stalman	AD BOX 391616 Anga CH 92	539
PHIL CLAIRE	Klest Mark	P.O BN 39059 ANY-CA.	
DALE HARKER	DU Gafa	TOTYO OLD FOREST Rd.	
Burk Sizu	AND DOG	5320 GLANCE A	en.
Steve SILKON	MI	6051 YVUA	
Leslighert	Lesligalbut	- 58890 Koweau Anza	
JAY	Jan Joran	56295 LOCUST : ANZA	

A PETITION TO HALT THE PAVING OF BAUTISTA CANYON ROAD

- 1. Potential crime increases in an area that has limited police presence.
- 2. Added traffic along a proven dangerous road.
- 3. The risk of unregulated populated expansion in a sensitive rural area.
- 4. Added pollution in the canyon.

			
Print Name	Signature	ADDRESS	
KRLLY TUFO	4-(4)	39121 TRAILIEND ARA	
FRANK Whiter	Falevain	391424 ANZA	
Barger Schu,	Bulara Schen	58723 YAW DD ANZA	
Edrea Kohl	Andent Ch.	43479 MCCan CA. Asyrunce	_
Tistin Changi	Thicky matter	60500 totsion Paint buch	. ۸ ۔ ۸ ا
CHERRY L SIKATOH	Charge Selloth	60710 Coyote (gn Anza	
Stephon Silkate	1.	60710 CONSTIT CYANNES	WASTE
Laureles Colem	Laur Les Colen	PO BOX 391313 ANZAGUS	g
Chris Fleth	Chy Jo	Da# 390522	
Ster Swin	Istan Som	Geren Tembigued a 2019	
NEWSHILWOOD Nothishilwood	Nous Heishlan	2 44745 TERWILLIGER RO	

A PETITION TO HALT THE PAVING OF BAUTISTA CANYON ROAD

- 1. Potential crime increases in an area that has limited police presence.
- 2. Added traffic along a proven dangerous road.
- 3. The risk of unregulated populated expansion in a sensitive rural area.
- 4. Added pollution in the canyon.

Print Name	Signature	ADDRESS
DOMALD ELFACE	Dan / W	7.0. Pux 340 59.4 AND 2A, OF
	Eric Hoffen	Po box 352 arga con
Law Marcha	MARCHANT	BOK 390333 ANZA CA
MARTHA SILKO	rd marchet	ANZA CA GO180 cognte an Onza an 93539
MARY JANE TAYLOR	Many Sufor	51350 OLDMINETE ANZA
GREGORY BALLON	DI Voucom	61350 OLDMINETE ANZA POBOX 390010 ANZA CA
DAW ID JASON		ROB 3324 Tly, a
ELLEN FORLEY		
THOMAS FIRTH	Coma Fith	BOX 3449 1 Jy CX 58395 RAMSOJRO, AMEN CA
CHARLESMUNEUT		49565 FUGHTLINE, MGUHARA
	gay Loean	56295 Locust Anza

N PERFORM TO RALL HIB FAVING OF BALLISTA CANYON ROAD

- 1. Potential oring increases in an area that has builted police presence.
- Added traffic along a provin dangerous road.
- The risk of our cyntated populated expansion in a sensitive rural area.
- 4. Added pollution in the canyon,

Print Natue	Signature	ADDRESS
JIM THRONG	James & Thors	P.O. By 291430
CHRIST H THRONG	V	58581 HW x 371 ANZA
j Sandoval)	1 Sandoval	45120 Gene Rob agranga Ca
Rita M.Wheat	TitaM. Wheat	Po Box 391293 Anza CA 92539
M. Gordan	Miky Jon Stephent I shots	38080 RIBBON WOOD CA.
STEPHEN	Stephent Silker	160780 Caye Caper
Pat TAYLOR	Patrin las	ANZA CA 92539
•	Chro Sugs	POBOX 391637 Anza (A 90539)
!	Iere Martin	P.O. Box 390570 Anza, Ca. 92539
Craig Johns	Ry Jhn	Anza CA 92539
Denise Johnson	Henrise Donner	ADRA CA 92539 BO, BOX 350909
·	Allen Sitterfiell.	DNZA,GA.90559

SAY L. BAUTISTA CANYON

A PETITION TO HALL THE PAVING OF BAUTISTA CANYON ROAD

We, the undersigned citizens and taxpayees of Anza, object to the paring of the dirt portion of Bandista Canyon Road located between Anza and Valle Vista for the following significant reasons.

Potential crime increases in an area that has limited police presence. 1.

Added traffic along a proven dangerous road. 2.

The risk of unregulated populated expansion in a sensitive rural area. 3.

4. Added pollution in the canyon,

	F ~	
Frint Name	Signature	ADDRESS
GARY L RINEY	Lay & Ban	Po. Box 390397 ANZA, Ca.
Leavy Josh	acity Con	20 Box 725 annex
Decer Sandling	Dan Sanding	Para Salara
II de Mai	Harces Conding	37205 Bautista Rd Anza
Sharmon Slow	Same of	Po Sox 390537, Avza
Alan P Solomor	ala / Sel	401 PO Sox 390376 Anza
NANCU ROPERTS	on Reus Roberton	ROBBY391046 Auga
GEORGE BICK	GL Geogl Buch	14.0.Box 391046 ansa
MERRILL LOW	By Stillyny	80 BOX 390507, MIZA
		626 E.OUZ. 157.
		Box 390225 Au 24,

A PETITION TO HALT THE PAVING OF BAUTISTA CANYON ROAD

We, the undersigned citizens and faxpayers of Anza, object to the paring of the diet portion of Baut 22 a Canyon Road located between Anza and Valle Vista for the following significant reasons.

Potential crime increases in an area that has limited police presence.
 Added traffic along a proven dangerous road.

3. The risk of unregulated populated expansion in a sensitive rural area.

4. Added pollution in the canyon.

	y	· · · · · · · · · · · · · · · · · · ·
Print Name	Signature	ADDRESS
Vietu ak		46291 Elaine Rd &B
PAN ASit	Shad il loom	4629/FLO;NA RO.770
BRADY VANDRAGT	huf Mg	PO, BOX 1269 BURREGO CA 92004
Phillip	P. Phyle	Po Bex 5562 Hemet CA 92544
DONNA JENES MARIEUE	- your ag - Julia	1 1 1 Kg 1 4/h
BROWN	Marke Brown	P.O. 390570 ANZA CA 92539
RON VAN DER LINDEN	Real Dyo	PO BOX 390922 ANZA, CA.
Deboral de Boer	Jebour debor	59-895 Gleve Ri ANZA, CA 925:37
GARTH SHANDAR	Cast Though	PW, B, X 391 PL2
LARRE	A STATE OF THE STA	NE GIO OPEL EN
Tort Markant	Pay Madre	3983 PUSTYRD
L	1 Kerebsil	

A PETITION TO HALT THE PAVING OF BAUTISTA CANYON ROAD

- I. Fotential crime increases in an area that has limited police presence.
- 2. Added traffic along a proven dangerous road.
- 3. The risk of our egulated populated expansion in a sensitive rural area.
- 4. Added pollution in the canyon.

Print Name	Signature	ADDRESS
GENE GARTINER	Tene Gardiney	48100 Rock CANYON WAY AGRANGA, CA. 92536 42010 RELLINGBILLETS
KIRK	Richard Kirk	Agrange Palling Bills To
ROBIO BROWN	01	31800 Old Care Rd ANIZA CA 92839
SARAHMAY	lan Otion	Anza CA
Lis A Gude	Lesa Mila	P.O. BOX 390525 V DAVZA CA 32455E. BENTONRD
WickHAm	Dan Wielth	
RUTH DEHLERKING	Dehles	Henry, CA 92455
RAIPY Kutch	light tile	WIN CTA
BETTY KATHAL	Barto Bor Wan wall	AN 7A, CA 92839
DANIS WATKIN)	Was Wall	43601 SORENSON RO. AGUANONC. 92836
49. Ribmin	Tam 5 Robinson	180, BL 390305 ANZA CA 98839

A PETITION TO HALT THE PAYING OF BAUTISTA CANYON ROAD

the the undersigned citizens and furpayers of Anza, object to the paring of the first portion of Bandista Canyon Road located between Anza and Valle Vista for the following significant reasons.

Potential crime increases in un'area that has limited police presence.

Added traffic along a proven transcrous road. 2

The risk of unregulated populated expansion in a sensitive rural area. 3.

Added pollution in the canyon. -1.

Print Name	Signature	ADDRESS	
]		34481 Dana Anzu 92539	
ROD BOUYGEDIS	La Berey	P.OBOX 390971 AMA CA 92539	
		P.O BOX 370971 AMAJCA 92555	
Rose Ony Hans	Coselm Hamith	39440 and 92539	
Nancy Kinell	Thung Elmel	36890 gordshor acel 9:	2561
1 51500 100 011		P.O. Dorbando Anza ce agosa	
		36907 BautistaCyn2di	
Brucez Casamen	Bruce Chasin	26395 NSOMI DR HEMETCA 925-44	
Carolyn Crowley	anch Crothe	P.O. Box 345 mfn. Center, CA 92561	·
Nicole Mapula	Nicole Mapula	Somera, Can and Romana, Can and	
Matt Cassidy	Most Causes	24952 Balestrieri Rd. Hernet, CA 92544	
WKohl	-0D	43479 McClam In, Ogranger Oh.	

A PETRION TO HALT THE PAYING OF BAUTISTA CANYON ROAD

- 4. Potential crime increases in an area that has limited police presence.
- 2. Added traffic a lag a proven dangerous road.
- 3 The risk of energylated populated expansion in a sensitive rural area.
- 4. Added pollution in the canyon.

Print Name	Signature	AUDRES5
DAWN RODES	D-Phh	53100 Deerway ANZA
SteveClark		36990 Brutista Cyn. Anzk
		110.11 121 15
Belinder Jarrow	Reliveder- Yorkow Schreder- Yorkow	10 Box 390735 Anza, CA 92539
Jim Chardler	If any	010 Cary Cod Anza Ca 92579 Old Cary Cod Ancua Cag 2539
Darlege Ston	rlaten Hou	42385 ROMA 74,118
DeanB		
Omanda She Hon	agarde	Cave Rock ROP.
Belinda Depler	1 Danie	59500 RAMSEY R
MARILYH HERE	Monty Dailes	59500 Romer Rd
Shirler	Thisles Kimbay	37479 Regal Blue In.
Kimb411	The Contract of the Contract o	1

Appendix C Mailing List for DEIS/EIR Distribution

Mailing List for DEIS Distribution

LIST OF THOSE RECEIVING DOCUMENT

MR. FRED SKAER (2) PROJECT DEVELOPMENT BRANCH (HEPE-1) FEDERAL HIGHWAY ADMINISTRATION 400-7TH STREET, SW WASHINGTON, DC 20590

U.S. EPA OFFICE OF FEDERAL ACTIVITIES (5) NEPA COMPLIANCE DIVISION EIS FILING SECTION ARIEL RIOS BLDG (SOUTH OVAL LOBBY) MAIL CODE 2252-A, ROOM 7241 1200 PENNSYLVANIA AVE., NW WASHINGTON, DC 20044

DIRECTOR, OFFICE OF ENVIRONMENTAL (18)
POLICY AND COMPLIANCE
DEPARTMENT OF THE INTERIOR
MAIN INTERIOR BUILDING, MS 2340
1849 C STREET, NW
WASHINGTON, DC 20240

NOVA BLAZEJ (5)
U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 HAWTHORNE STREET
SAN FRANCISCO, CA 94105

MR. BOB JOHNSON
DIRECTOR
COUNTY OF RIVERSIDE
PLANNING DEPARTMENT
4080 LEMON STREET, 9TH FLOOR
RIVERSIDE COUNTY, CA 92502-1090

MR. WILLIAM MOSBY DISTRICT LOCAL ASSISTANCE ENGINEER MS1030 464 WEST 4TH STREET SAN BERNARDINO, CA 92410

MR. DENNIS JACOBS SENIOR TRANSPORTATION ENGINEER CALIFORNIA DEPARTMENT OF TRANSPORTATION 1120 N STREET SACRAMENTO, CA 95814

MR. BILL FODGE DIRECTOR OF ENGINEERING USDA FOREST SERVICE, REGION 5 1323 CLUB DRIVE VALLEJO, CA 94592 STATE OF CALIFORNIA (15) GOVERNOR'S OFFICE OF PLANNING AND RESEARCH STATE CLEARINGHOUSE 1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CA 95812-3044

MS. MEREDITH KAPLAN SUPERINTENDENT JUAN BATISTA DE ANZA NATIONAL HISTORIC TRAIL 1111 JACKSON STREET, SUITE 700 OAKLAND, CA 94607

MR. JESSE BENNETT US DOI, FISH AND WILDLIFE SERVICE CARLSBAD FISH AND WILDLIFE OFFICE 6010 HIDDEN VALLEY ROAD CARLSBAD, CA 92009

MS. ELAINE JOHNSON SUPERVISING BOARD ASSISTANT RIVERSIDE COUNTY BOARD OF SUPERVISORS 4080 LEMON STREET, 5TH FLOOR RIVERSIDE, CA 92501-3656

J. DAVID STEIN SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS 3600 LIME ST., STE. 216 RIVERSIDE, CA 92501

STATE OF CALIFORNIA-THE RESOURCES AGENCY DEPARTMENT OF FORESTRY AND FIRE PROTECTION RIVERSIDE UNIT BAUTISTA CONSERVATION CAMP 33015 BAUTISTA ROAD HEMET, CA 92545

TERESA TUNG
RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT
1995 MARKET STREET
RIVERSIDE, CA 92501

MR. DAN SWENSON REGULATORY PROJECT MANAGER US ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT PO BOX 532711 LOS ANGELES, CA 90017-3401

MR. MANUEL HAMILTON TRIBAL CHAIRMAN RAMONA BAND OF CAHUILLA INDIANS PO BOX 391670 ANZA, CA 92539 MR. ANTONIO HEREDIA JR., CHAIRPERSON CAHUILLA BAND OF MISSION INDIANS PO BOX 391760 ANZA, CA 92539-1760

ROSEMARY MORILLO, TRIBAL COUNCIL CAHUILLA BAND OF MISSION INDIANS PO BOX 391760 ANZA, CA 92539-1760

MR. ROBERT SELGADO TRIBAL CHAIRPERSON SOBOBA BAND OF MISSION INDIANS PO BOX 487 SAN JACINTO, CA 92581-0487

MR. DON KLIMA ADVISORY COUNCIL ON HISTORIC PRESERVATION 12136 W. BAYAUD AVE., RM 330 LAKEWOOD, CO 80228

MR. GENE ZIMMERMAN (3) SAN BERNARDINO NATIONAL FOREST FOREST SUPERVISOR'S OFFICE 1824 S. COMMERCENTER CIRCLE SAN BERNARDINO, CA 92408-3430

MR. GENE FONG FEDERAL HIGHWAY ADMINISTRATION CALIFORNIA DIVISION OFFICE 980 NINTH STREET, SUITE 400 SACRAMENTO, CA 95812-1915

U.S. FOREST SERVICE P.O. BOX 518 54270 PINECREST IDYLLWILD, CA 92349

U.S. FOREST SERVICE BIG BEAR DISCOVERY CENTER P.O. BOX 66 40971 NORTHSHORE DRIVE, HIGHWAY 38 FAWNSKIN, CA 92333

RIVERSIDE COUNTY LIBRARY ANZA BRANCH 57430 MITCHELL ROAD ANZA, CA 92539-9289

RIVERSIDE COUNTY LIBRARY VALLE VISTA BRANCH 25757 FAIRVIEW AVENUE HEMET, CA 992544-5339

RIVERSIDE COUNTY LIBRARY IDYLLWILD BRANCH 54185 PINECREST IDYLLWILD, CA 92349 FRIENDS OF BAUTISTA CANYON JOSE TORRES, COORDINATOR P.O. BOX 390243 ANZA, CA 92539

ERIC HALEY
RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON ST., 3RD FLOOR
RIVERSIDE, CA 92501

DAVE OULTMAN CITY OF HEMET 3777 INDUSTRIAL WAY HEMET, CA 92545

RIVERSIDE COUNTY SHERIFF'S DEPARTMENT 43950 ACACIA HEMET, CA 92544

BAUTISTA CANYON CONSERVATION CAMP (CC# 36) LIEUTENENT MILLER 33015 BAUTISTA ROAD HEMET, CA 92544

SOUTHERN CAMP OFFICE STATE CORRECTIONS DEPARTMENT CAPTAIN RALSTON 701 SOUTH DUPONT AVENUE ONTARIO. CA 91761

RIVERSIDE COUNTY REGIONAL PARK & OPEN SPACE DISTRICT MARC BREWER, PARK PLANNER 4600 CRESTMORE ROAD RIVERSIDE, CA 92509-6858

SIERRA CONSERVATION CENTER STATE CORRECTIONS DEPARTMENT 5100 BYRNES, FERRY ROAD JAMESTONE, CA 92327

BOB LAVIN CITY OF SAN JACINTO 201 E. MAIN STREET SAN JACINTO, CA 92583

SOUTH COAST AQMD 21865 E COPLEY DR DIAMOND BAR, CA 91765

RIVERSIDE COUNTY FIRE DEPARTMENT 210 WEST SAN JACINTO AVENUE PERRIS, CA 92570

CALIFORNIA DEPARTMENT OF FORESTRY 33015 BAUTISTA ROAD HEMET, CA 92544 JAMES WALLACE COUNTY AGRICULTURE COMMISSION 4080 LEMON ST., RM. 19 RIVERSIDE, CA 92501

MIKE RILEY VERIZON 150 S. JUANITA ST. HEMET, CA 92543

DENNY JOYCE ANZA WATER COMPANY ANZA ELECTRIC P.O. BOX 96 ANZA, CA 93506

SENATOR JIM BATTIN 37TH DISTRICT 73-710 FRED WARING DR # 112 PALM DESERT, CA 92260

JOHN BENOIT, ASSEMBLY MEMBER 1223 UNIVERSITY AVE., STE 230 RIVERSIDE, CA 92507

MAILING LIST OF THOSE RECEIVING NOA

RIVERSIDE COUNTY CLERK & RECORDER MAIL STOP 1140

SAN DIEGO COUNTY CLERK COUNTY ADMINISTRATION CENTER 1600 PACIFIC HIGHWAY, RM. 260 SAN DIEGO, CA 92101

DAVID KELLEY 44381 BAUTISTA CANYON ROAD HEMET, CA 92544

TRISH TULEY P.O. BOX 1191 IDYLLWILD, CA 92549

DAVID LINSHOLM P.O. BOX 3131 IDYLLWILD, CA 92549

SHEILA MEYER P.O. BOX 2454 IDYLLWILD, CA 92549

GEORGE MYER P.O. BOX 2454 IDYLLWILD, CA 92549

ERIN & BOB BECK P.O. BOX 3367 IDYLLWILD, CA 92549

KATE KRAMER 40250 RESEDA SPRINGS ROAD HEMET, CA 92544

DICK BERGERON 42455 WILDWOOD LANE AGUANGA, CA 92536

ROBERT HEWITT
USDA
NATURAL RESOURCES CONSERVATION
SERVICE
950 RAMONA BLVD, SUITE 6
SAN JACINTO, CA 92582

GARY EASTIN P.O. BOX 109 JOSHUA TREE, CA 92252

MONICA BOND CENTER FOR BIOLOGICAL DIVERSITY P.O. BOX 493 IDYLLWILD, CA 92549 ED WALL 8 ENCORE COURT NEWPORT BEACH, CA 92663

SENATOR DIANNE FEINSTEIN 11111 SANTA MONICA BLVD. # 915 LOS ANGELES, CA 90025

SENATOR BARBARA BOXER 201 NORTH E ST., STE. 210 SAN BERNARDINO, CA 92401

PROPERTY OWNERS ALONG BAUTISTA CYN RD (ALONG CONSTRUCTION AREA)
UPDATED LIST FROM SCOPING MTG; WILL BE A SEPARATE LIST

Appendix D Agency Consultation Comments

List of Correspondence

	Date of Carranandana
Correspondence	Date of Correspondence
Advisory Council on Historic Preservation to FHWA	06/23/04
FHWA to Advisory Council on Historic Preservation	05/28/04
SHPO to FHWA	04/29/04
FHWA to SHPO	04/23/04
FHWA to Soboba Band of Luiseno Indians	03/24/04
SHPO to FHWA	03/10/04
FHWA to USFWS	02/24/04
FHWA to SHPO	01/29/04
USFWS to FHWA	01/12/04
NPS to FHWA	12/29/03
FHWA to USFWS	12/04/03
FHWA to USACE	11/13/03
Soboba Band of Luiseno Indians	10/22/03
FHWA to Addressees List	09/22/03
County of Riverside to FHWA	09/18/03
FHWA to County of Riverside	08/27/03
County of Riverside to FHWA	07/25/03
FHWA to County of Riverside	04/10/03
FHWA to USFWS	01/17/03
NRCS to FHWA	12/17/02
FHWA to USDA NRCS	12/12/02
FHWA to OSDA NRCS FHWA to Ramona Band of Cahuilla Indians	07/23/02
	07/22/02
USEPA to FHWA	07/03/02
FHWA to USACE	
USFWS to FHWA	06/20/02
FHWA to USFWS	05/15/02
NPS to FHWA	01/16/02
FHWA to Torres-Martinez Desert Cahuilla Indians	10/17/01
Native American Heritage Commission to FHWA	05/04/01
NPS to USFS	04/27/01
FHWA to USEPA	04/17/01
USFS to FHWA	04/02/01
USFWS to FHWA	03/12/01
USFWS to FHWA	03/12/01
USFWS to County of Riverside	03/12/01
FHWA to Caltrans	03/05/01
CDFG to County of Riverside	03/05/01
Mark Wills to Zully Smith	02/27/01
USFWS to FHWA	02/22/01
County of Riverside (Flood Control) to County of Riverside (Tran	s)02/16/01
FHWA to County of Riverside	02/14/01
California Department of Forestry and Fire Protection	02/13/01
SCAG to County of Riverside	02/05/01
Native American Heritage Commission to County of Riverside	02/01/01
NPS to County of Riverside	01/30/01
State Clearinghouse to Reviewing Agencies	01/25/01
FHWA to Federal Register	01/05/01
FHWA to County of Riverside	10/16/00
County of Riverside to FHWA	11/15/95
	11/09/95
Anne Brunick to Dgedeon Bbird	10/31/95
County of Riverside to FHWA	10/27/95
FHWA to USFS	04/18/94
FHWA to Addressees List	04/ 10/ <i>0</i> 4



Preserving America's Heritage

June 23 2004

Stephen Hallisy Environmental Protection Specialist Federal Highway Administration 555 Zang Street, Room 259 Lakewood, CO 80228

REF: Bautista Canyon Road (FHWA 010326A) Riverside County, CA.

Dear Mr. Hallisy:

We received your notification and supporting documentation regarding the adverse effects of the referenced project, a property eligible for inclusion in the National Register of Historic Places. Based upon the information you provided, we do not believe that our participation in consultation to resolve adverse effects is needed. However, should circumstances change, please notify us so we can re-evaluate if our participation is required. Pursuant to 36 CFR 800.6(b)(iv), you will need to file the Memorandum of Agreement, and related documentation at the conclusion of the consultation process. The filing of this Agreement with the ACHP is necessary to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with your notification of adverse effect. If you have any questions, please contact Carol Legard at 303/969-5110 or via eMail at clegard@achp.gov.

Sincerely,

Nancy Kochan

Office Administrator/Technician Western Office of Federal

Maney Kochan

Agency Programs



Central Federal Lands Highway Division

555 Zang Street, Rm. 259 Lakewood, CO 80228

MAY 2 8 2004

Refer to: HFHD-16

Mr. Don L. Klima, Director Office of Planning and Review Advisory Council on Historic Preservation 1100 Pennsylvania Avenue, NW, #809 Washington, DC 20004

Dear Mr. Klima:

Subject: California Forest Highway (FH) 224, Bautista Canyon Road

In accordance with 36 CFR 800.6(a)(1), we are providing you with notification of an adverse affect finding for 21 historic properties that fall partially within the area of potential effects of the subject undertaking. The following information is provided pursuant to 36 CFR 800.11(e):

- 1. Project description -- The Federal Highway Administration (FHWA), Central Federal Lands Highway Division, in cooperation with the US Department of Agriculture Forest Service, the California Department of Transportation, and Riverside County, is proposing to improve FH 224. Forest Highway 224 is a 21.7-mile route in Riverside County between State Highway (SH) 74, at the town of Valle Vista, and SH 371, about 1.5 miles west of the community of Anza. The proposed action is for the reconstruction of a 13.2-kilometer 8.2-mile segment of Bautista Canyon Road, including the construction of a new bridge over Bautista Canyon Creek (see enclosed Figure 1.3-1). The road traverses through the San Bernardino National Forest (SBNF) and provides access to over 40,000 acres of National Forest, Indian Reservation, state, and private lands. It links the communities of Hemet and Anza to the southern portion of the SBNF. The project is being funded through the Public Lands Forest Highway Program and by Riverside County.
- 2. Steps taken for the subject undertaking to identify historic properties are documented in the enclosed copies of correspondence with the California State Historic Preservation Office (SHPO) and the Soboba Band of Luiseno Indians.

3. A description of the affected historic properties is provided in the following table:

Bautista Canyon Road Existing Cultural Resources

Field No(s).	SBNF No.	Within APE ¹ ?	Eligibility for NRHP	Description
0	05-12-55-238	yes	Yes	Bautista Canyon Archaeological District that includes 18 archaeological sites, and the Bautista Canyon Ethnobotanical TCP (Native American plant collecting areas, and an ethnographic landscape).
_	05-12-55-27	ou	Yes	Previously recorded lithic scatter located within CDF Bautista Conservation Camp.
	05-12-55-125	ou	Yes	Previously recorded bedrock mortar located within CDF Bautista Conservation Camp.
	05-12-55-124	01	Yes	Previously recorded late-prehistoric seasonal camp located within CDF Bautista Conservation Camp.
	05-12-55-123	2	Yes	Previously recorded late-prehistoric seasonal camp and basketry plant collecting area located within CDF Bautista Conservation Camp.
	05-12-55-239	yes	Yes	Activity area with a bedrock milling feature, 10 metates, 3 manos, an extensive lithic scatter including 2 biface fragments. Road through site leads to CA-RIV-3092.
	05-12-55-240	οu	Yes	Bedrock milling features (2).
	05-12-55-241	yes	Yes	Lithic resource procurement and reduction area with shallow subsurface deposit.
	05-12-55-242	ou	Yes	Extensive midden area in with roasting features, subsurface deposit up to 50 cm (20 in) deep; bedrock mortar with pestle; large stands of Juncus textilis
	05-12-55-243	по	Yes	Lithic scatter with historical-period bottle base.
	05-12-55-244	оп	No	Early 20th century temporary camp consisting of scatter of cans and bottles; possibly associated with old road to Tripp Flats.
	05-12-55-245	ou	Yes	Lithic scatter from single reduction episode.
	05-12-55-141	yes	Yes	Bedrock milling feature, metate, and lithic scatter; tested, no subsurface deposit in APE; large area of Juncus lexillis at east edge of site along creek.
	05-12-55-246	yes	Yes	Bedrock milling feature with 2 mortars, 3 slicks, on large boulder dislodged during road construction.
	05-12-55-247	ои	Yes	Temporary camp consisting of bedrock milling features, midden, lithic scatter, and pottery.
	05-12-55-248 (was -140, Lotus C)	OU .	Yes	Temporary camp with numerous bedrock features (mortars and metate slicks), pestle and several mano fragments, pottery sherd, and quartz flakes.

CHRIS Designations	Field No(s).	SBNF No.	Within APE ¹ ?	Eligibility for NRHP	Description
P-33-13186	BC-3	05-12-55-140	yes	Yes	Large habitation site on both sides of road but mostly on northeast side; contains midden thermal features, house pits,
CA-RIV-7351		Loci A and B			occioek initing features, and artifact scarci, testen, cuttana ueposit to 50 cm (20 m) in uepui.
P-33-13187	BC-22	05-12-55-249	yes	Yes	Pre-1918 road alignment enters APB through BC-3.
CA-RIV-7352H					
P-33-13188	BC-16	05-12-55-250	оц	Yes	Lithic scatter
CA-RIV-7353			•		
P-33-13189	BC-1	05-12-55-103	sək	Yes	Lithic procurement and reduction site on both sides of road; large flaked stone scatter, cores, and bifaces.
CA-RIV-7354					
1	BC-7	05-12-55-102	ои	No	Bedrock milling feature and lithic scatter recorded by SBNF in 1980; not relocated.
P-33-13190	BC-18	05-12-55-251	yes	Yes	Lithic scatter.
CA-RIV-7355					
P-33-13191	BC-19	05-12-55-252	OLI	No	Early 20th-century trash scatter with glass and cans.
CA-RIV-7356H	_				
P-33-13192	BC-11	05-12-55-253	011	No	1950s automobile dump.
CA-RIV-7357H					
P-33-13193	BC-17	05-12-55-254	sək	No	Early-mid-20th century farmstead.
CA-RIV-7358H					
P-33-13194	BC-23	05-12-55-255	yes	Yes	Current road alignment constructed 1914-1917; portion of the Juan Bautista de Anza National Historic Trail
CA-RIV-7359H					automobile route,

•

•

The eighteen prehistoric sites that comprise the Bautista Canyon Archeological District are eligible for the NRHP under criteria d. Bautista Canyon Road and the earlier pre-1918 road alignment are eligible under criteria a and b. The Bautista Canyon Ethno botanical Traditional Cultural Property is eligible under criteria c and d.

- 4. The proposed highway reconstruction project will directly impact a portion of each of the 18 prehistoric sites that constitute the Bautista Canyon Archeological District. Sites BC 22 and 23 that constitute the Anza National Historic Trail Transportation Corridor and the Bautista Canyon Ethno botanical Traditional Cultural Property will be subject to adverse visual impacts due to diminishment or alteration of the integrity of feeling, setting, and association with the historic landscape of Bautista Canyon.
- 5. 36 CFR 800.5(a)(2)(i) was found to be applicable given anticipated physical destruction of or damage to a portion of each prehistoric site, sites BC 22 and 23 that constitute the Anza National Historic Trail Transportation Corridor, and alteration of the Bautista Canyon Ethno botanical Traditional Cultural Property due to adverse visual impacts. Measures to totally avoid impacts to these properties were considered, but total avoidance is not feasible. Measures to minimize physical destruction and visual impacts include the following:
 - In consultation with Native American tribes, the SBNF, NPS, State Historic
 Preservation Officer (SHPO), and the Advisory Council on Historic Preservation, the
 FHWA will prepare a Memorandum of Agreement (MOA) according to the
 provisions of the NHPA (36 CFR 800.6).
 - The MOA will contain provisions for the FHWA the County of Riverside to prepare and implement mitigation measures for archaeological sites subject to direct adverse effects. The measures will address data recovery from imperiled features and cultural deposits in affected site areas, archaeological monitoring of sensitive areas for unanticipated discoveries during construction, Native American monitoring of project-related archaeological activities, and curation of all recovered cultural materials in a federally approved repository.
 - The MOA will also address issues of protecting archaeological sites and collecting areas for basketry materials from degradation by unauthorized uses, while providing for access to qualified researchers, traditional practitioners, and agency staff.
 - Any revegetation plan or visual treatment plan for the project will be prepared and implemented in consultation with traditional practitioners and designed to enhance the growth and distribution of desirable species and minimize changes in the canyon setting of the project.

- If human remains are discovered, work shall halt in that area and procedures set forth in the California Resources Code (§ 5097.98) and State Health and Safety Code (§ 7050.5) shall be followed by the archaeological monitor, after notification to the County coroner by the FHWA project engineer. If Native American remains are present, the County coroner shall contact the Native American Heritage Commission to designate a Most Likely Descendant, who will arrange for the dignified disposition and treatment of the remains. Ground-disturbing activities shall be allowed to resume in the area of discovery upon completion of the above requirements, to the satisfaction of the FHWA project engineer.
- 6. Copies of the views of consulting parties are enclosed.
- 7. A Memorandum of Agreement will be prepared by the FHWA and filed with the Council.

If you have any questions, please contact Mr. Stephen Hallisy, Environmental Protection Specialist at 303 716-2140 or write to the above address, Attention: HFHD-16, Environment.

Sincerely yours,

(8)

T. Samuel Holder, P.E. Project Development Engineer

Enclosure

bc w/o enclosure:

S. Hallisy

S Holder

H. Hirsbrunner

Reading file

Central File - CA FH 224, Bautista Canyon Road

SHALLISY:jm:5/24/2004:L:\ENVIRONM\WP\CA224 Bautista Canyon\Tribal

Consultation & Cultural Resources\achpadvaffectnotification.doc

STATE OF CALIFORNIA - THE RESOURCES AGENCY

OFFICE OF HISTORIC PRESERVATION DEPARTMENT OF PARKS AND RECREATION

P.O. BOX 942896 SACRAMENTO, CA 94296-0001 (916) 653-6624 Fax: (916) 653-9824 calshpo@ohp.parks.ca.gov www.ohp.parks.ca.gov



April 29, 2004

In Reply Refer To FHWA010326A

T. Samuel Holder Project Development Engineer United States Department of Transportation Central Federal Lands Highway Division 555 Zang Street, Rm. 259 Lakewood, CO 80228

RE: CONTINUING SECTION 106 CONSULTATION FOR THE CALIFORNIA FOREST HIGHWAY 224 (BAUTISTA CANYON ROAD) RIVERSIDE COUNTY, CALIFORNIA

Dear Mr. Holder:

Thank you for continuing consultation with me for the undertaking referenced above. You are contacting me on the basis of my March 10, 2004 comments regarding the FHWA's determination that CA-RIV-7359H (Bautista Canyon Road) and CA-RIV-7352H (a portion of an earlier road alignment) were not eligible for inclusion in the National Register of Historic Places (NRHP). I acknowledge that on the basis of my earlier comments and recent phone conversations that you have had with the Project Review Staff Archaeologist assigned to this project, Blossom Hamusek, that you have re-evaluated and revised your determination of eligibility and finding of effect for these resources.

Your additional research has indicated that the historic landscape of Bautista Canyon is virtually intact and the historic transportation corridor throughout the Area of Potential Effects (APE) is virtually unchanged and possesses integrity of setting, feeling, and association with the Anza expedition. Consequently, FHWA has determined that those portions of sites CA-RIV-7359H (Bautista Canyon Road) and CA-RIV-7352H (historic wagon road segment) that are situated within the APE are considered contributing elements of a larger historic transportation corridor known as the Juan Baustista de Anza National Historic Trail under criteria a and b. The period of significance for CA-RIV-7359H extends from 1774 – 1917 and it is considered significant at a local, state and national level, while the period of significance for CA-RIV-7352H is from 1890 – 1925 where it is considered significant at a local level. Based on the submitted information, I concur with the FHWA's determination that both CA-RIV-7359H and CA-RIV-7352H are eligible for the NRHP under criteria a and b.

In accordance with 36 CFR 800.4(d)(2), FHWA finds that CA-RIV-7359H (Bautista Canyon Road), CA-RIV-7352H (wagon road segment), the eighteen prehistoric sites designated as the Bautista Canyon Archaeological District (CA-RIV-1889, -3090, -3091, -3092, -7340, -7341, -7342, -7343, -7344/H, -7346, -7347/H, -7348, -7349, -7350, -7351, -7353, -7354, and -7355), and the Bautista Canyon Ethnobotanical Traditional Cultural Property, all of which are either completely or partially located within the APE, will be subject to adverse effects resulting from the physical destruction, damage, alteration and/or diminishment of the setting of these historic properties with the implementation of the proposed undertaking. On the basis of this, FHWA finds that

T. Samuel Holder April 29, 2004 Page 2 of 2

an adverse effect finding is appropriate for this undertaking for all three project alternatives. In accordance with 36 CFR 800.5(d)(2), I concur with FHWA's Finding of Adverse Effect for this undertaking.

I understand that following the comment period, FHWA will be issuing notification to the Advisory Council on Historic Preservation addressing the determination of adverse effects and will continue consultation with me in accordance with §800.6 in order to resolve adverse effects with the development of a Memorandum of Agreement. Thank you for seeking our comments and I look forward to continuing our consultation on the resolution of adverse effects.

Please do not hesitate to contact Blossom Hamusek, Project Review Unit Staff Archaeologist at (916) 651-6956 or at bhamu@ohp.parks.ca.gov, if you have any questions or need clarification of any of my comments.

Sincerely,

Ngutfery for Stephen D. Mikesell

Acting State Historic Preservation Officer



Central Federal Lands Highway Division

555 Zang Street, Rm. 259 Lakewood, CO 80228

APR 2 3 2004

Refer To: HFHD-16

Dr. Knox Mellon State Historic Preservation Officer Office of Historic Preservation PO Box 942896 Sacramento, CA 94296-0001

Dear Dr. Mellon:

Subject: California Forest Highway 224, Bautista Canyon Road (FHWA 010326A)

We are contacting you at this time to continue consultation on the subject undertaking. On the basis of your comments of March 10, 2004, we have reevaluated our determination of eligibility and finding of effect for sites CA-RIV-7359H (Bautista Canyon Road), CA-RIV-7352H (wagon road segment), and the 8.2 miles automobile route of the Juan Bautista de Anza National Historic Trail.

Determination of Eligibility for the NRHP

In accordance with 36 CFR 800.4(c), we have applied National Register criteria to sites CA-RIV-7359H (Bautista Canyon Road), CA-RIV-7352H (wagon road segment), and the 8.2 miles automobile route of the Juan Bautista de Anza National Historic Trail as contributing elements of a historic transportation corridor. Because the historic landscape of Bautista Canyon is virtually intact, this historic transportation corridor is virtually unchanged and possesses integrity of setting, feeling, and association with the Anza expedition. Consequently, we have determined that these three properties are eligible for listing on the National Register of Historic Places as contributing elements to a historic transportation corridor under 36 CFR 60.4 criteria a and b.

Finding of Effect

In accordance with 36 CFR 800.4(d) (2), the FHWA finds that this historic transportation corridor comprised of sites CA-RIV-7359H (Bautista Canyon Road), CA-RIV-7352H (wagon road segment), and the 8.2 miles automobile route of the Juan Bautista de Anza National Historic Trail will be subject to adverse effects resulting from altering and diminishing the setting of the historic transportation corridor with implementation of the proposed undertaking.

Resolution of Adverse Effects

Following the comment period, the FHWA will issue notification to the Advisory Council on Historic Preservation addressing the determinations of adverse effects. We ask for your concurrence with our determination of eligibility and finding of adverse effect.



If you have any questions, please contact Mr. Stephen Hallisy, Environmental Protection Specialist at 303 716-2140 or write to the above address, Attention: HFHD-16, Environment. We look forward to consultations with your office.

Sincerely yours,

T. Samuel Holder, P.E.

Project Development Engineer

cc: Ms. Mary Zambon, County of Riverside, Transportation Department, 4080 Lemon St, 8th floor, Riverside, CA 92501

Mr. Mike Florey, USFS, 1824 South Commerce Center Circle, San Bernardino, CA 92408

Mr. Daniel McCarthy, USFS, San Jacinto Ranger District, PO Box 518, Idyllwild, CA 92549

Mr. Don Klima, Advisory Council on Historic Preservation, 12136 W. Bayaud Ave., Rm 330, Lakewood, CO 80228

bc:

S. Hallisy

S. Holder

H. Hirsbrunner

Reading file

Central file: CA FH 224, Bautista Canyon Road

SHALLISY:: 4/23/2004: L:\ENVIRONM\WP\CA224 Bautista Canyon\Tribal Consultation & Cultural Resources\23 April 04 SHPO Letter.doc



555 Zang Street, Rm. 259 Lakewood, CO 80228

MAR 2 4 2004

Refer to: HFHD-16

Ms. Rosemary Morillo Vice-Chairperson Soboba Band of Luiseño Indians PO Box 487 San Jacinto, CA 92581

Dear Ms. Morillo:

Federal Highway Administration

Subject: California Forest Highway 224, Bautista Canyon Road

Thank you for your review and comment on the Draft Cultural Resource Report for California Forest Highway 224, Bautista Canyon Road. We would like to provide clarification to your specific concerns:

1) The Soboba Tribe requests that they be named as contact or representative as to the interest of Luiseño and Cahuilla cultural resources and any Native American human remains that are uncovered during the development of this project.

The FHWA recognizes the Soboba Tribe as a consulting party as are the Ramona and Cahuilla. The FHWA intends to initiate discussions regarding the content of a Memorandum of Agreement in consultation with all of the federally recognized tribes that have been participating. The identification of tribal monitors and contacts for other purposes will be established at that time.

2) The Soboba requests that significance determinations be made in consultation with Soboba, Cahuilla, and Ramona Tribes.

Significance determinations have been made in consultation with the Tribes.

3) The Tribe believes there is high potential that other cultural resources and sacred sites exist within the project area.

The FHWA agrees and includes "stop work" clauses in all FHWA construction clauses. The project MOA will include procedures to be implemented in the event an inadvertent discovery of cultural resources occurs.

4) Soboba tribe believes that Native American monitors should be present during all ground disturbing activities, including further archaeological testing.



The FHWA will consult with the Tribes to determine a procedure for enlisting Native American archaeological monitors for any required archaeological testing and data recovery. The FHWA performed a 100 percent pedestrian survey of the entire corridor and is confident that the MOA will establish satisfactory procedures for any inadvertent discovery.

5) In the event human remains are discovered, Soboba intends to assert its rights under California Law as a likely descendant.

In the event Native American human remains are uncovered during construction, the FHWA will follow California state law requiring notification of the County Coroner, who will refer the matter to the Native American Heritage Commission (NAHC) if the remains are determined to be of Native American origin (Section 7050.5, Health and Safety Code). The NAHC will then make a determination and notify the Most Likely Descendants, who may recommend their preferred treatment to the San Bernardino National Forest (Section 5097.98, Public Resources Code).

6) Soboba requests that Federal Highway Administration (FHWA), County, and San Bernardino National Forest (SBNF) work with them to draft an agreement that addresses the inadvertent discovery of cultural resources, including human remains.

The FHWA agrees.

7) Soboba is consulting with their elders to determine if more cultural resources may be present than have been identified.

The FHWA would be very appreciative of any additional information on the study area.

- 8) Soboba would like to be a signatory to the MOA, and that the MOA cover the following:
 - a. Treatment of cultural resources uncovered on the site in accordance with tribal customs and traditions
 - b. Tribal monitoring and the return of ceremonial and sacred items back to the affiliated tribe for proper treatment, including possibly burying items back in place
 - c. Treatment of Native American human remains. One elder has indicated that burials are in the area

The FHWA agrees that the Soboba be a signatory to the MOA and will work with the Soboba in developing the MOA to address the above concerns.

9) Soboba disagrees with curation of artifacts at the San Bernardino County Museum and feels artifacts should be turned over to the affiliated tribe.

The Archaeological Resource Protection Act requires curation in a federally approved repository. If cultural items are claimed under Native American Graves Protection and Repatriation Act (NAGPRA), they must be human remains, associated funerary objects, unassociated funerary objects, sacred objects, or items of cultural patrimony that are culturally affiliated with the claimant. To our knowledge, none of the archaeological materials collected are cultural items as defined by NAGPRA.

10) Soboba would like acknowledgement that Luiseno territory encompasses a larger area than noted on figure 8 of the cultural report and would like to provide a more accurate map. They feel that the project area was used by both tribes and Luiseno would like appropriate acknowledgement in any MOA.

The FHWA considers Soboba a consulting tribe and will include them in the MOA process. We would appreciate any information on Luiseno territories that would be helpful for our process or would add knowledge to the understanding of peoples of southern California. The consultants who prepared the cultural resources report for FHWA and the County (Statistical Research, Inc. [SRI]) met with Ms. Morillo on November 22, 2003, as part of a field trip to review the project. At that time the question regarding the Map (Figure 8 in the report) was discussed. Ms. Morillo indicated that Soboba had a more accurate map and SRI requested it for inclusion in the final report. SRI followed up this request in a telephone call to Ms. Morillo on December 24, 2003 at which time she indicated she would ask her staff to send a map approved by the tribe. No map was ever received by SRI, although the text in the final report was updated to reflect Soboba's concerns (page 20), and the source of the map, a standard reference on California Indians, was clearly attributed in both the text and in the caption to the figure.

If you have any questions, please contact Mr. Stephen Hallisy, Environmental Protection Specialist at 303 716-2140 or write to the above address, Attention: HFHD-16, Environment.

Sincerely yours,

Project Development Engineer

cc: Mary Zambon, Senior Transportation Planner, Transportation Department, County of Riverside, 4080 Lemon St., 8th Floor, Riverside, CA 92502-1090 Mike Florey, Forest Engineer, 1824 S. Commercenter Cr, San Bernardino, CA 92408-3430

STATE OF CALIFORNIA - THE RESOURCES AGENCY

OFFICE OF HISTORIC PRESERVATION DEPARTMENT OF PARKS AND RECREATION

P.O. BOX 942896 SACRAMENTO, CA 94296-0001 (916) 653-6624 Fax: (916) 653-9824 calshpo@ohp.parks.ca.gov www.ohp.parks.ca.gov

March 10, 2004

In Reply Refer To FHWA010326A

Mike Vanderhoof Environmental Protection Specialist United States Department of Transportation Central Federal Lands Highway Division 555 Zang Street, Rm. 259 Lakewood, CO 80228

RE: SECTION 106 CONSULTATION FOR THE CALIFORNIA FOREST HIGHWAY 224 (BAUTISTA CANYON ROAD) RIVERSIDE COUNTY, CALIFORNIA

Dear Mr. Vanderhoof:

Thank you for your January 29, 2004 submittal that continues consultation with me regarding the undertaking referenced above. You are consulting with me in accordance with 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f), as amended (Act). Specifically, the FHWA is requesting my concurrence with the following determinations of eligibility:

- Eighteen prehistoric sites, CA-RIV-1889, -3090, -3091, -3092, -7340, -7341, -7342, -7343, -7344/H, -7346, -7347/H, -7348, -7349, -7350, -7351, -7353, -7354, and -7355 are eligible under Criterion D for listing on the National Register of Historic Places (National Register) as contributing elements of an archaeological district;
- The floral resources of the canyon, including the locations for collecting basketry materials, have been determined to be important cultural resources that meet the NRHP criteria for eligibility under criteria C and D as a traditional cultural property (TCP);
- Historic Site, CA-RIV-7359H (Bautista Canyon Road and a portion of the Juan Bautista de Anza National HistoricTrail) and CA-RIV-7357H, -7345H, -7358H, -7356H, 7352H, BC-24 and BC-5 are not eligible for listing on the National Register under any of the criteria.

Your submittal included the following studies:

- Along the Trail of Juan Babtiste and Juan Bautista de Anza Cultural Resources Inventory and Evaluation of the Bautista Canyon Road Project (California Forest Highway 224), Riverside County, California by Statistical Research Inc., December 2003; and,
- Traditional and Contemporary Uses of Bautista Canyon Floral Resources by Cultural Systems Research, Inc., April 2003.

By applying the National Register criteria (36 CFR Part 63) you have determined that CA-RIV-7357H, -7345H, -7358H, -7356H, BC-24 and BC-5 do not meet the criteria of integrity and are ineligible for inclusion in the National Register under Criteria A, B, C and D. Based on the information presented in the submitted materials, I concur with FHWA's determination that these resources are not eligible for the National Register.

I also concur with FHWA's determination that the eighteen prehistoric sites, CA-RIV-1889, -3090, -3091, -3092, -7340, -7341, -7342, -7343, -7344/H, -7346, -7347/H, -7348, -7349, -7350, -7351, -7353, -7354, and -7355 are eligible under Criterion D for listing on the National Register as contributing elements of an archaeological district which you have designated as the Bautista Canyon Archaeological District. I understand that the boundaries of the archaeological portion of the district are minimally defined as the limits of the 100-meter-wide study corridor covered in the archaeological survey for this undertaking, and also include previously recorded archaeological sites CA-RIV-1889, -3090, -3091, and -3092 which immediately adjoin the study area in the Bautista Conservation Camp.

Based on my review of the submitted documents, I concur that the floral resources of Bautista Canyon, including the locations for collecting basketry materials, are eligible for listing on the National Register under Criterion C as "representative of a significant and distinguishable entity whose components may lack individual distinction," namely, the "entire plant community," and Criterion D for its "history of yielding, or potential to yield, information important in prehistory or history." I understand the boundaries of the Traditional Cultural Property minimally includes the APE investigated for the ethnobotanical study and include an area that measures approximately 500 meters on each side of the road for the length of the undertaking.

At the present time I am unable to concur with the FHWA's determination that CA-RIV-7359H (Bautista Canyon Road) and CA-RIV-7352H (a portion of an earlier road alignment) are not eligible to the National Register. Based on the information submitted to me, it appears that if the Juan Bautista de Anza National Historic Trail were evaluated for its potential as a historic property, then the segment designated as CA-RIV-7359H, which the research has indicated closely converges as the actual route followed by Anza, and later as an "auto route," would be a contributing element to the prospective historic property as a whole. It is true that the road segments (CA-RIV-7359H and -7352H) within the APE would not be considered eligible as contributing elements to either the proposed Bautista Canyon Archaeological and Ethnobotanical District. The historic/prehistoric context, themes and areas of significance for these latter resources are obviously unrelated to the road segments. However, the significance of this portion of the Anza National Historic Trail as an early transportation route that is virtually unchanged from its appearance at that time, and as an intact historic landscape through which the expedition passed in 1774-1775, should be taken into consideration. These early road segments derive their importance from being a unified entity, and therefore, the individual resources should not be evaluated separately from the whole. While the FHWA may feel that these resources lack integrity individually, the National Register status of CA-RIV-7359H and -7352H remains unclear because the context of these road segments (i.e. contributing or non-contributing element) has not been developed.

Given that the National Register status of some properties within the APE remains unresolved, I prefer to reserve comment on the FHWA's Finding of Effect while our efforts to resolve the National Register status of the road segments pursuant to 36 CFR § 800.4(c)(1)-(2) continues. Finally, thank you again for seeking our comments on your undertaking. Please do not hesitate to contact Blossom Hamusek, Project Review Unit Staff Archaeologist at (916) 651-6956 or at bhamu@ohp.parks.ca.gov, if you have any questions or need clarification of any of my comments.

Sincerely,

Mulfery for Dr. Knox Mellon

State Historic Preservation Officer





555 Zang Street, Rm. 259 Lakewood, CO 80228

FEB 2 4 2004

Refer to: HFHD-16

Mr. Jesse Bennett US DOI, Fish and Wildlife Service Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road Carlsbad, CA 92009

Dear Mr. Bennett:

Subject: CA Forest Highway 224 (Bautista Canyon Road)

FWS-WRIV-1458.8

This information is being provided to supplement data in the Biological Assessment for CA Forest Highway (FH) 224.

Traffic

Existing traffic counts and traffic projections were obtained and prepared by Urban Crossroads, Inc. on behalf of Riverside County. The Urban Crossroads report and data are enclosed.

Existing Traffic Counts

There are three count locations: 1) Fairview Road near State Highway (SH) 74; 2) the paved section just north of the Conservation Camp; and, 3) the unpaved section just south of Tripp Flats. Location #1 represents the urban areas on the northern end of the project. Location #2 represents the paved section north of the route. Location #3 represents the currently unpaved section. The following are actual and projected average daily traffic counts for the FH 224 project.

<u>Location</u>	Existing (C)1') No Build* (2	<u>5'***)</u> Build** (0	5') Build (25'***)
Fairview Road	346	<i>7</i> 79	600	1790
Conservation Camp	138	311	400	1320
Tripp Flats	61	137	300	1150

- * The no build takes existing traffic counts times 225 percent total projected regional growth.
- ** The build alternatives result in a projected traffic diversion from other roads of 450 vehicles per day. The opening year diversion has been projected at 56 percent of the total. The 225 percent total growth rate was applied to the existing plus the full diversion rate to determine the 2025 build alternative traffic projection.
- *** Comparisons to design year traffic (2025) should be between the no build projected 2025 level and the projected 2025 traffic if a build alternative is selected because traffic on this route is expected to increase regardless of whether the project is constructed.



Based on this data, roadway reconstruction will result in an immediate 1.5 to 5x increase in traffic that expands at a slightly higher rate than the county average of 225 percent as individuals become increasingly aware of the new roadway and the diversion reaches the projected full level of 450 vehicles per day. From that point, traffic would be expected to increase in line with County growth. Economic development can affect traffic growth; however, most of the project area is publicly owned and is not developable.

Nighttime Traffic

Nighttime traffic is considered that which operates between 8 pm and 7 am. Nighttime traffic has been calculated as 19 percent of existing. Further, 44 percent of this nighttime activity occurs between the hours of 6 am to 7 am, which is after sunrise from March 22 to October 5. The remainder is spread throughout the night but decreases to near zero between 12 am and 3 am. The following projections list total nighttime traffic and, in parenthesis, the nighttime traffic excluding the 6-7 am period. Nighttime traffic is projected to remain very low, even in the design year 2025.

<u>Location</u>	Existing (0)	1') No Build (25')	Build (05')	Build (25")
Fairview Road	66 (37)	148 (83)	114 (64)	340 (190)
Conservation Camp	26 (15)	59 (33)	76 (43)	251 (141)
Tripp Flats	12 (7)	26 (15)	57 (32)	219 (123)

Vehicle Speed

Vehicle speed in the current unpaved section has been projected to increase from approximately 20 mph to an average of 33 mph. Vehicle speed in the existing paved section will not change as a result of this project because roadway geometry will not change except for one 90-degree curve at the southern termini. The current design alternatives would reconstruct the roadway as a rural collector, which in this case will be a fairly low speed mountain road. A recent 8-year study performed in Yellowstone National Park (Gunther et al 1998) noted that actual vehicle speeds on roads of this nature are usually kept in check by the narrow curvilinear design of the roadway as opposed to larger, wider, higher design (more straight alignment) speed roads that had an average increase in actual vehicle speed of 16 mph. The Yellowstone study revealed that 85 percent of all road kills occurred in areas with speed limits greater than 45 mph. The relationship between speed and road kill was not linear. Large mammals were killed by vehicles significantly more than expected on roads with posted speeds of 55 mph and significantly less than expected on roads with posted speeds of 45 mph or less. Forest Highway 224 will have a curvilinear alignment and narrow typical section and would be posted with a speed limit of 30-35 mph depending on the final design.

Based on the above data, low traffic levels, and low design speed, the project is expected to result in minimal effects to wildlife populations as a result of vehicle related mortality. Regardless, and due to potential effects to habitat connectivity, the project proposes to install wildlife crossings at five locations, and to erect several hundred meters of toad exclusion near a known population of Arroyo Toad.

Noise

Project-related noise can occur due to heavy equipment operating during construction and as traffic. Construction noise can be broken into different construction operations such as grading and paving. Construction noise can have a high intensity, but is temporary. Traffic noise on the other hand is long-term and often has a lower intensity.

Traffic Noise

Noise impacts are considered great enough to require consideration of mitigation when projected traffic noise levels approach or exceed specific noise abatement criteria, or if the projected traffic noise levels substantially exceed the existing noise levels in the area (23 CFR 772). The criterion is 67 decibels for residential, picnic areas, parks, and schools. Most state highway agencies use either a 10- or 15-decibel increase in noise levels to define a "substantial increase," or they may use a sliding scale with greater allowance for increases from a lower base level (USDOT, 2000). This project is using an increase of 12 dBA as the threshold for the definition of substantial.

Posted no trucks over 14k 166. -> No semis

		Traffic Noise	Estimate		
	Existing No	oise Levels (01')	Projected 1	Noise Levels (Build 25')	Dicharce
<u>Location</u>	<u>50'</u>	<u>200'</u>	<u>50'</u>	200'	- Eron
Fairview	52dBA	42dBA	59dBA	49dBA	CLV
Conservation Camp	46dBA	36dBA	58dBA	48dBA	
Tripp Flats	40dBA	31dBA	57dBA	47dBA	

Noise has been calculated at two distances: 1) 50 feet to reflect roadside conditions, and 2) 200 feet to model noise at the distance of the closest known receptor, a house near the southern terminus. The table shows that noise 50 feet from the roadway edge at the northern location at Fairview increases from 52dBA to 59dBA, the paved section near the conservation camp increases from 46dBA to 58dBA, and the unpaved section can expect an increase from approximately 40dBA to 57dBA. Similar magnitude increases occur at 200 feet; however, noise levels are much lower.

Construction Noise

It is difficult to predict construction noise. Heavy machinery, the major source, is constantly moving in unpredictable patterns and at varying speeds. This affects the intensity of the noise that is emitted by engines and other moving parts, which has an affect on the amount of noise that reaches a receptor. The duration and level of construction noise are dependent on the following phases of activity:

- 1. Ground clearing and removal of existing trees, rocks, and soil
- 2. Utility relocations
- 3. Excavation
- 4. Placement of foundations and roadbeds
- 5. Erection of structures including bridges and retaining walls
- 6. Finishing, including filling, grading, paving, landscaping, and cleanup operations

Typically the first three phases of construction generate the highest noise levels (and are performed earliest in the process). Construction noise represents a short-term impact on the noise environment.

Construction noise effects have been modeled based on ISO method 9613-2, Attenuation of Sound During Propagation Outdoors. Noise levels have been provided for Earthwork (Items 1 and 3), and Paving (Item 6). The receptor distances that were modeled are 50 to 1,320 feet (1/4 mile) from the proposed roadway. The 50-foot distance was used to provide a measure of noise level immediately adjacent to the construction area. The 200-foot distance is being used because

it represents the approximate distance of the nearest house. The 400- and 1,320-foot (1/4 mile) distances are provided to illustrate the decrease in noise energy with distance.

		Construction 1	Noise Estimate		Unpaved
<u>Activity</u>	<u>50'</u>	<u>200'</u>	<u>400'</u>	1320' (1/4 mile)	1 1 1 1
Earthwork	88dBA	72dBA	64dBA	50dBA	Section
Paving	82dBA	66dBA	58dBA	44dBA	_ only

This data reflects that substantial noise effects can be expected close to the road during the reconstruction of the unpaved section, which is the primary purpose of placing a ¼ mile buffer around the known Southwestern willow flycatcher nest at Cottonwood Canyon. As indicated in the table, noise levels drop significantly with distance, and ¼ mile should be more than sufficient to alleviate potential noise effects to breeding Southwestern willow flycatcher. Positive aspects of construction noise are that it is temporary, does not typically occur at night, and can be mitigated somewhat by ensuring that construction equipment is properly muffled.

16 ms. constructor schedule

The paved section will not experience this construction related noise. Rather, noise levels in the paved section would be expected to increase somewhat over the existing levels due to higher truck and vehicular traffic from workers and materials entering the site.

If I can be of further assistance please feel free to contact me at (303) 716-2052.

Sincerely yours,

15/

T. Samuel Holder, P.E. Project Development Engineer

Enclosure

References:

Administrative Draft Environmental Impact Statement/Environmental Impact Report, CA Forest Highway 224, USDOT-FHWA, 2004

Factors Influencing the Frequency of Road-Killed Wildlife in Yellowstone National Park, Kerry A Gunther, Mark J. Biel, and Hillary L Robinson, Bear Management Office, Yellowstone National Park, 1998

"Highway Traffic Noise in the United States - Problem and Response", U.S. Department of Transportation, Federal Highway Administration, Publication No. FHWA-EP-00-011 HEPN/6-00(5M)QE, April 2000.

bc: T. Samuel Holder Richard J. Cushing

Michael Vanderhoof

Reading file

Central file: CA FH 224, Bautista Canyon Road

MVanderhoof:jm:2/24/04:L/environ/wp/ca224/biological resources/04Feb11Traffic&NoiseSupp



Central Federal Lands Highway Division

555 Zang Street, Rm. 259 Lakewood, CO 80228

JAN 2 9 2004

Refer To: HFHD-16

Dr. Knox Mellon State Historic Preservation Officer Office of Historic Preservation PO Box 942896 Sacramento, CA 94296-0001

Dear Dr. Mellon:

Subject: California Forest Highway 224 (Bautista Canyon Road)

This letter is a determination of eligibility and finding of effect for the proposed federal undertaking to reconstruct California Forest Highway (FH) 224 (Bautista Canyon Road). This is being submitted pursuant to Section 106 of the National Historic Preservation Act (NHPA). The effort to identify and evaluate all historic and archaeological resources within the APE, as defined by 36 CFR 800.16(d), has been completed and reported in the enclosed report entitled "Along the Trail of Juan Baptiste and Juan Bautista de Anza". The inventory and evaluation effort has been conducted in accordance with the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 Federal Register Part IV).

Background

The Federal Highway Administration (FHWA), Central Federal Lands Highway Division, in cooperation with the US Department of Agriculture Forest Service, the California Department of Transportation, and Riverside County, is proposing to reconstruct FH 224. Forest Highway 224 is a 21.7-mile route in Riverside County between State Highway (SH) 74, at the town of Valle Vista, and SH 371, about 1.5 miles west of the community of Anza. The road traverses through the San Bernardino National Forest (SBNF) and provides access to over 40,000 acres of National Forest, Indian Reservation, state, and private lands. It links the communities of Hemet and Anza to the southern portion of the SBNF. The project is being funded through the Public Lands Forest Highway Program and by Riverside County.

Consultation History

The FHWA is the lead federal agency for this undertaking. On March 19, 2001, we submitted to your office, a preliminary cultural resources assessment and requested your input regarding the identification of interested parties, the identification of historic properties, and the project's Area of Potential Effects (APE). On February 6, 2002, we submitted a work plan describing studies that were subsequently implemented to provide us with information necessary to determine eligibility for listing in the National Register of Historic Places (NRHP) and issue a finding of effect for historic properties within the APE of our improvement.



The route has been designated by the National Park Service as a portion of the automobile route of the Juan Bautista de Anza National Historic Trail. As a result, the FHWA has had ongoing consultation with the National Park Service since January 2001.

In March 2001, the FHWA initiated consultation by sending letters to five federally recognized Native American tribes that were provided by the SBNF Tribal Relations Program Manager. In April 2001, two of those tribes attended a cultural resource-scoping meeting. On April 9, 2001, the FHWA contacted the California Native American Heritage Commission and the SBNF to identify any additional potentially interested Native American Tribes. Twenty tribes were invited to participate and there has been ongoing consultation with four tribes and other interested Native American traditional practitioners.

Determination of Eligibility for the NRHP

Please see the enclosed report entitled "Along the Trail of Juan Baptiste and Juan Bautista de Anza", which documents cultural resource survey results and recommends eligibility for resources found in the project area. In consideration of the report recommendations and our consultation with the SBNF, NPS, and Native American Tribes, the FHWA has determined the eligibility of these resources for listing in the NRHP.

Cultural resources in the project area can be categorized as archaeological resources, floral resources used by Native Americans for traditional cultural purposes, and the roadway itself as a historical period resource.

Archaeological Sites

Archaeological sites have been divided into historical period and prehistoric sites. The prehistoric archaeological sites have been determined as eligible for listing in the NRHP as elements of an archaeological district. The historical-period sites do not meet the criteria for NRHP eligibility.

The table below lists the archaeological sites, their eligibility, location in APE, and a site description.

CHRIS Trinomial (Field No.)	Eligible	Within APE	Historic (H)/ Prehistoric (P)	<u>Description</u>
RIV-7354 (BC-1)	Yes	Yes	P	Lithic procurement and reduction site on both sides of the road; large flaked stone scatter, cores, and bifaces.
RIV-3091 (BC-2)	Yes	No -	P	Bedrock milling feature and lithic scatter with glass and cans
RIV-3092 (BC-3)	Yes	Yes	P	Large habitation Site on both sides of the road but mostly on the northeast side; contains midden, thermal features, house pits, bedrock milling features, and artifact scatter; tested, cultural deposits to 50 cm in depth.
RIV-7347H (BC-4)	Yes	Yes	P	Bedrock milling feature, metate, and lithic scatter; tested, no subsurface deposit in APE; large area of <i>Juncus textilis</i> at east edge of site along creek.

		· · · · · · · · · · · · · · · · · · ·		3
N/A (BC-5)	Yes	No	P	Complete olla found during firebreak construction in 1989 Bautista burns; collected by SBNF.
RIV-7343 (BC-6)	Yes	No	P	Extensive midden area with roasting features, subsurface deposit up to 50 cm deep; bedrock mortar with pestle; large stands of <i>Juncus textilis</i> .
RIV-7340 (BC-7)	Yes	. Yes	P	Activity area with bedrock milling feature; 10 metates; 3 manos; an extensive lithic scatter, including 2 biface fragments. Road through site leads to RIV-3092, a habitation site outside the APE.
RIV-7341 (BC-8)	Yes	No	P	Two bedrock-milling features.
RIV-7342 (BC-9)	Yes	Yes	P	Lithic resource procurement and reduction area with shallow subsurface deposit.
RIV-7344H (BC-10)	Yes	No	P	Lithic scatter with historical period bottle base.
RIV-7357H (BC-11)	No	No	H	1950s automobile dump.
RIV-7345H (BC-12)	No	No	Н	Early 20th century temporary camp consisting of scatter of cans and bottles.
RIV-7348 (BC-13)	Yes	Yes	P	Bedrock milling feature with 2 mortars and 3 slicks on large boulder.
RIV-7349 (BC-14)	Yes	No	Р	Temporary camp consisting of bedrock milling features, midden, lithic scatter, and pottery.
RIV-7350 (BC- 15/20)	Yes	No	P	Temporary camp with numerous bedrock (mortars and metate slicks), pestle and several mano fragments, pottery sgerd and quartz flakes.
RIV-7353 (BC-16)	Yes	No	P	Lithic scatter.
RIV-7358H (BC-17)	No	Yes	H	Early to mid-20th century farmstead.
RIV-7355 (BC-18)	Yes	Yes	P	Lithic scatter.
RIV-7356H (BC-19)	No	No	Н	Early 20th century trash scatter with glass and cans
RIV-7346 (BC-21)	Yes	No	P	Lithic scatter from single reduction episode.
RIV-7352H (BC-22)	No	Yes	Н	Pre- 1925 road alignment enters APE through BC-3.
RIV-7359H (BC-23)	No	Yes	Н	Current road alignment constructed 1914-1917
N/A (BC-24)	No	Yes	H	Plumb Bob; collected.

Floral Resources

Tribal consultation revealed that Native Americans consider the floral resources of Bautista Canyon, including locations for collecting basketry materials, to constitute a historic cultural landscape. As such, FHWA considers them eligible for listing in the NRHP as a Traditional Cultural Property (TCP). The actual boundary of the TCP likely extends for some distance and minimally includes the APE investigated for the ethno-botanical study, or 500m on each side of the proposed roadway. We have enclosed the report entitled *Traditional and Contemporary uses of Bautista Canyon Floral Resources*, which describes the culturally sensitive plants and their historic uses. The report was prepared to supplement and is cited in the primary cultural resource report: *Along the Trail of Juan Baptiste and Juan Bautista de Anza*.

In consideration of the results of the cultural resources and ethno-botanical studies outlined above, FHWA has determined that the prehistoric and proto-historic archaeological resources recorded for this project, as well as previously recorded sites RIV-1889, -3090, -3091, and – 3092, and the basketry plant collecting areas and other floral resources of Bautista Canyon, are eligible for listing in the NRHP as a district. These resources collectively retain integrity of location, setting, materials, feeling, and association, and form a landscape that is little altered from its period of significance.

Existing Roadway

The existing roadway is not eligible for the NRHP as a feature or due to its designation on the automobile route of the Juan Bautista de Anza National Historic Trail.

Finding of Effect

The FHWA has recently established enough preliminary design information to enable us to determine potential effects to historic properties (23 CFR 800.16[1]). As noted above, the two kinds of resources that are eligible for the NRHP and within the project APE are archaeological sites, and floral resources.

Archaeological Sites and District

The APE for Archaeological resources is the footprint of the improvement plus a 5 m (16ft) buffer for temporary construction access. Effects to the archaeological district will occur where the existing improvement APE intersects known archaeological sites. Sites RIV-7354 (BC-1), RIV-3092 (BC-3), RIV-7347H (BC-4), RIV-7340 (BC-7), RIV-7342 (BC-9), RIV-7348 (BC-13), and RIV-7355 (BC-18) are considered eligible for the NRHP and are located within the APE for archaeological resources. Archaeological sites within this APE will be subject to adverse effects resulting from the physical destruction or alteration of the resource such that the significance of the historical resource may be materially impaired in the affected portion of the site.

Floral Resources

The APE for floral resources is the area within 500m on each side of the proposed roadway. Direct effects are expected in the area occupied by the footprint of the improvement plus a 5 m (16ft) buffer for temporary construction access. Indirect effects may extend to the 500 m APE boundary and include things like a change in the current access, and noise.

Resolution of Adverse Effects

Following the comment period, the FHWA will issue notification to the Advisory Council on Historic Preservation addressing the determinations of adverse effects. In order for your comments to receive consideration, therefore, the FHWA encourages you to comment by March 1, 2004.

Please direct your comments to Mr. Michael E. Vanderhoof, Environmental Protection Specialist, at the address above. If you need additional information prior to issuing concurrence or comments, Mr. Vanderhoof may also be contacted by phone at (303) 716-2141 or by e-mail at michael.vanderhoof@fhwa.dot.gov. We look forward to consultations with your office.

Sincerely yours,

T. Samuel Holder, P.E.

Project Development Engineer

Enclosures: SRI study, CSRI study

cc w/o enclosure:

Ms. Mary Zambon, County of Riverside, Transportation Department, 4080 Lemon St, 8th floor, Riverside, CA 92501

Mr. Mike Florey, USFS, 1824 South Commerce Center Circle, San Bernardino, CA 92408

Mr. Daniel McCarthy, USFS, San Jacinto Ranger District, PO Box 518, Idyllwild, CA 92549

Mr. Don Klima, Advisory Council on Historic Preservation, 12136 W Bayaud Ave., Rm 330, Lakewood, CO 80228

bc: Michael Vanderhoof, Environmental Protection Specialist
T. Samuel Holder

Reading file

MVANDERHOOF:jm:01/29/04:L/environm/wp/ca224/tribal consultation.../04 January 28 SHPO letter



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road
Carlsbad, California 92009



JAN 1 2 2004

In Reply Refer To: FWS-WRIV-1458.5

T. Samuel Holder Project Manager Federal Highway Administration 555 Zang Street, Rm. 259 Lakewood, Colorado 80228

Re: Request for Formal Section 7 Consultation for the Proposed Reconstruction of Bautista

Canyon Road on the San Bernardino National Forest

Dear Mr. Holder:

This letter acknowledges the U.S. Fish and Wildlife Service's (Service) December 8, 2003, receipt of your December 4, 2003, letter and biological assessment requesting initiation of formal section 7 consultation under the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 et seq.). Your December 4, 2003, letter and biological assessment regarding the proposed reconstruction of Bautista Canyon Road requested formal section 7 consultation for the federally endangered Quino checkerspot butterfly (Euphydryas editha quino) and arroyo toad (Bufo californicus) and concurrence that the proposed project was not likely to adversely affect the federally endangered Nevin's barberry (Berberis nevinii), slender-horned spineflower (Dodecahema leptoceras), southwestern willow flycatcher (Empidonax traillii extimus), and San Bernardino kangaroo rat (Dipodomys merriami parvus).

Based on the lack of observations of the Nevin's barberry and slender-horned spineflower within the reconstruction area during surveys, the planned preconstruction surveys for the slender-horned spineflower, and the distance from the reconstruction area to known and potential downstream populations of slender-horned spineflower, we concur with your determination that the project as proposed is not likely to adversely affect the Nevin's barberry and slender-horned spineflower. Should the project plans change, or if additional information is found on the distribution of these species within the project area, this determination should be reconsidered.

Increased traffic levels and speeds are anticipated through occupied San Bernardino kangaroo rat habitat downstream of the reconstruction area. The December 4, 2003, biological assessment provides a rationale for why impacts to the San Bernardino kangaroo rat due to increased traffic levels and speeds will be minimized but does not provide sufficient rationale to conclude that effects will be avoided. Also, the road is in proximity to a known occupied southwestern willow flycatcher territory. Inadequate information was presented regarding the extent of the territory to conclude that the project, as proposed, is not likely to adversely affect the southwestern willow



flycatcher. Moreover, no results from habitat assessments or appropriate presence/absence surveys for the southwestern willow flycatcher in upstream or downstream areas that will be subject to increased traffic levels and speeds have been provided. Thus, we cannot concur with your "not likely to adversely affect" determinations for the San Bernardino kangaroo rat or the southwestern willow flycatcher and recommend that the consultation include these species.

Although surveys for the federally endangered least Bell's vireo (*Vireo bellii pusillus*, "vireo") were negative adjacent to the reconstruction project, any vireo occupying riparian areas upstream or downstream of the reconstruction project could be affected by the anticipated increase in traffic levels, traffic speed and traffic noise.

In summary, we have not received all of the information necessary to initiate formal consultation on the proposed Bautista Canyon Road reconstruction project as outlined in the regulations governing interagency consultations (50 CFR §402.14). To complete the initiation package, we request the following information:

1. A description of the action being considered.

We request timeframes for the start and completion of the proposed project activities including the road reconstruction and toad barrier construction activities.

2. A description of any listed species or critical habitat that may be affected by the action.

The December 4, 2003, biological assessment indicates that increased traffic levels and speeds are likely to occur north and south from the road reconstruction footprint due to this project. However, surveys and analysis for the Quino checkerspot butterfly were restricted to the area around the reconstruction footprint and did not include these north and south portions of Bautista Canyon Road. We recommend the completion of habitat assessments and appropriate presence/absence surveys for the Quino checkerspot butterfly for the areas north and south from the road reconstruction site that will be subject to increased traffic and/or speed levels. We also recommend habitat assessments and appropriate presence/absence surveys for the southwestern willow flycatcher and least Bell's vireo upstream and downstream from the reconstruction area where traffic levels and/or speeds will increase.

The formal consultation process for the project will not begin until we receive all of the information, or a statement explaining why that information cannot be made available. We will notify you when we receive this additional information; our notification letter will also outline the dates within which formal consultation should be complete and the biological opinion delivered on the proposed action.

If you have any questions about this consultation or the consultation process in general, please contact Jesse Bennett of my staff at (760) 431-9440.

Sincerely,

Karen A. Goebel

Assistant Field Supervisor

cc: Gene Zimmerman (San Bernardino National Forest, San Bernardino)
Laurie Rosenthal (San Jacinto Ranger District, Idyllwild)



United States Department of the Interior

NATIONAL PARK SERVICE

Pacific West Region
Juan Bautista de Anza National Historic Trail
1111 Jackson Street, Suite 700
Oakland, California 94607

IN REPLY REFER TO:

DEC 2 9 2003

D18(PGSO-PP)

December 18, 2003

Michael Vanderhoof Central Federal Lands Highway Division Federal Highway Administration 555 Zang, Room 259 Lakewood, Colorado 80228

Dear Mr. Vanderhoof:

Thank you for the opportunity to review the Administrative Draft Environmental Impact Statement (EIS/EIR) for the California Forest Highway (FH) 224, Bautista Canyon Road. Most of the National Park Service comments are included in the enclosed file using the format you provided. However, some of our comments on the Visual Resources section do not lend themselves to that format. Therefore, we have included those comments in this letter.

We appreciate the Federal Highways Administration (FHWA) taking seriously the visual impacts of the proposed project on the character of Bautista Canyon and including a visual resource study in the draft EIS/EIR. The visual resources section does an accurate job of describing the existing visual environment of the road. It describes natural open space as the dominant landscape of the canyon, providing "visual relief from urban development and freeway corridors in Riverside County." (3.10.1, page 181) It notes that native vegetation along the road reduces the visual impact of the road and that users expect a scenic experience in using the road.

The assessment corroborates our statements in our January 16, 2002 letter to you as follows: "This segment of road is unique along the 1200-mile long Juan Bautista de Anza National Historic Trail (Anza Trail). It is the only place with an intact chaparral plant community that encompasses the entire view shed and is one of the few places along the trail available today that provides an experience of what the Anza expedition members might have seen. The narrow bench of the current dirt road, which is vegetated to its edges, provides an opportunity for the tourist on the Anza Trail to travel within this chaparral environment while also viewing the riparian vegetation of the canyon at several locations. It is one of the special places along the historic route to which the NPS directs visitors."

Therefore, we agree with the management prescriptions in the visual resource section for visual quality objectives (VQO) and viewer sensitivity. The VQO is "partial retention," meaning that the landscape character appears only slightly altered—the road "does not dominate the overall character of the landscape." Viewer sensitivity is classified at the highest level with a note that driving for pleasure is one of the most prevalent recreation experiences in the San Bernardino National Forest (SBNF).

On the other hand, we do not understand the classification of the landscape character as "Variety Class C", defined as "landscapes where the landforms, vegetation patterns, and cultural land use have lower scenic value." (section 10.3.2) Our question would be, lower than what? As noted in the introductory paragraph to Section 3.10, page 178, "local values can confer visual significance on landscape features

Michael Vanderhoof December 18, 2003 Page 2

scenic value." (section 10.3.2) Our question would be, lower than what? As noted in the introductory paragraph to Section 3.10, page 178, "local values can confer visual significance on landscape features and areas that would otherwise appear unexceptional" (FHWA 1986). Given the relief from the surrounding urban development that traveling this canyon provides and the uniqueness of the intact ecosystem, it merits a higher classification. Also, the note that the dry stream adds "only a small amount of value to the overall scenic attractiveness" is a subjective judgement. The stream and its riparian vegetation add visual interest year round whether there is running water or not. We recommend a reconsideration of the classification for landscape character or at least a better description of the criteria used to classify it.

We find the simulations to be inadequate. First, Figure 3.10.1 "Project View shed and Landscape Units" does not help the reader understand just what part of the road is being viewed in the simulations. The alternative shown in the simulations is not identified. The simulations do not clearly show the road cross-section or how it would lie on the land. The reality of the grading is not represented accurately, but rather shows sharp angles on the fills and does not appear to show the extent of the fills. The representations of the revegetation are just a matter of pasting segments of the existing landscape onto the shape of the fill areas. It would better serve the public in evaluating this project if grading were shown at three periods: immediately after project completion, in five years, and in 20 years. Also, the Visual Resources section should estimate how much of the proposed new roadway is represented by each of the simulations. What percent of the entire project is represented by the extremely deep cuts in View 1 or the slightly less deep cuts of View 2? Does View 1 represent the greatest cut of 25 m (80 ft) in height? If not, what would that look like?

The Environmental Consequences section (3.10.4.1, page 186) concludes that the proposed road would be a dominant human-made feature that would change the scale of the landscape experience, that it would exceed human scale, that it would dominate the existing landscape in all aspects including form, line, color, and texture, and that large cuts composed of exposed rock could remain an adverse visual impact for decades (italics added). Our concern, of course, is with the visual experience from the road itself. The Environmental Consequences section states that "most of the visual impact would be seen from Bautista Canyon Road itself while traversing the canyon in either direction" (Section 3.10.4.1). We are hard pressed, therefore, to understand how the impacts of all the alternatives can be reduced to below the level of significance.

We are under the impression that the project design for all alternatives already includes the features of reseeding disturbed vegetation, colorizing the exposed rock faces, blending fill areas into the natural contours, and rounding back cut edges to the natural slope. One would suppose that the simulations would include these features. Alternative C includes steeper cut slopes and more of them than the other alternatives. Is Alternative C shown in the simulations? Steeper slopes increase the potential for visual impacts because the steeper slopes cannot be revegetated. Colorizing rock may have a cosmetic effect but it would not reduce the impacts to below a level of significance. It would be more accurate to say that the harshness of the visual impacts can be softened somewhat, but not mitigated to a level of insignificance.

The Environmental Consequences section (page 186) also notes that the VQO of the SBNF are not met by the proposed alternative, but with the mitigations they would be. Yet there is no evaluation of how partial retention would be achieved or how this road would not dominate the overall character of the landscape for the driver with the mitigations. The conclusions of the visual resources Environmental Consequences section of the draft EIS/EIR are perfunctory and not well supported.

Michael Vanderhoof December 18, 2003 Page 3

fact that this road project will have a huge and unmitigatable negative impact on the visual quality experienced by the road user.

As you see, this document has not changed our concerns expressed in our January 2002 letter as follows: "the extensive cuts and fills required to create a paved road design that meets American Association of State Highway and Transportation Officials (AASHTO) standards will completely change the visual character of the roadway and the experience of the user. Second, and related to the first, the cuts and fills will expose large areas of soil to invasion by exotic species that are noticeably absent from the canyon now. The potential establishment of these species along the roadway could threaten the integrity of the entire canyon ecosystem."

We continue to have great concern about the impact of this project on the visual and botanical resources of the Juan Bautista de Anza National Historic Trail.

Sincerely,

Meredith Kaplan, Superintendent

Meredia Kapla

Juan Bautista de Anza National Historic Trail

Enclosure

cc:

Sam Holder, Project Manager, FHWA

Mary Zambon, Senior Transportation Planner, Riverside County

Gale Zimmerman, Forest Supervisor

Mike Florey, Director, Engineering and Recreation, San Bernardino National Forest



Central Federal Lands Highway Division

555 Zang Street, Rm. 259 Lakewood, CO 80228

DEC 0 4 2003

Refer to: HFHD-16

Mr. Jesse Bennett US Department of Interior Fish and Wildlife Service Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road Carlsbad, CA 92009

Dear Mr. Bennett:

Subject: California Forest Highway 224 (Bautista Canyon Road)

FWS-WRIV-1458.3



Enclosed is a copy of the Biological Assessment (BA) for the proposed reconstruction of 13.2 km (8.2 mi) unpaved segment of Forest Highway 224 (FH 224) also known as Bautista Canyon Road. The BA was developed, in part, through informal consultation with your office and coordination with the San Bernardino National Forest, the federal agency responsible for lands through which FH 224 travels. Informal consultation with your office consisted of attending project meetings and field reviews, written correspondence, and telephone conversations with the Federal Highway Administration (FHWA) staff or its representatives.

The FHWA greatly appreciates the time and energy that your agency has invested in the informal consultation portion of the Section 7 process and believes that the BA is a thorough and comprehensive document because of this effort.

In summary, the following effect determinations were made:

Plants	Federal Status	Determination
Nevin's Barberry	Endangered	May effect, but not likely to adversely affect
Thread-leaved Brodiaea	Threatened	No effect
Slender-horned Spineflower	Endangered	May effect, but not likely to adversely affect
Santa Ana River Woolly-Star	Endangered	No effect
Bear Valley Blue-grass	Endangered	No effect
Animals		
Quino Checkerspot Butterfly	Endangered	May effect, and likely to adversely affect
Arroyo Toad	Endangered	May effect, and likely to adversely affect
Mountain Yellow-legged Frog	Endangered	No effect
Southwestern Willow Flycatcher	Endangered	May effect, but not likely to adversely affect
Coastal California Gnatcatcher	Threatened	No effect
Least Bell's Vireo	Endangered	No effect
San Bernardino Kangaroo Rat	Endangered	May effect, but not likely to adversely affect



Since the BA determines that the project may affect, and is likely to adversely affect, two Federally endangered species, we are requesting initiation of formal consultation at this time. We request that you issue a draft Biological Opinion (BO) for our review and comment prior to issuing the final BO for the project.

We are planning to publish the Draft Environmental Impact Statement in March 2004, and it would be beneficial to include the results of this consultation. Therefore, we would appreciate notification of whether you find the document complete within 30 days of receipt of this Biological Assessment. If you find the document complete, we request the draft Biological Opinion within 90 days of that finding.

If you have any questions or comments, please do not hesitate to contact Mr. Michael E. Vanderhoof, Environmental Protection Specialist, at 303-716-2141, or by email at michael.vanderhoof@fhwa.dot.gov. The FHWA appreciates your time and assistance on this project and we look forward to hearing from you soon.

Sincerely yours,

Mark B. Tay or T. Samuel Holder, P.E.

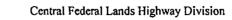
Project Manager

Enclosures

cc w/o enclosure (BA):

Ms. Mary Zambon, County of Riverside, Transportation Department, 4080 Lemon St, 8th floor, Riverside, CA 92501

Mr. Mike Florey, US Forest Service, 1824 Commerce Center Circle, San Bernardino, CA 92408



555 Zang Street, Rm. 259 Lakewood, CO 80228

NOV 1 3 2003

Refer to: HFHD-16

Mr. Dan Swenson Regulatory Project Manager US Army Corps of Engineers Los Angeles District PO Box 532711 Los Angeles, CA 90017-3401

Dear Mr. Swenson:

U.S. Department of Transportation

Federal Highway

Subject: California Forest Highway 224 (Bautista Canyon Road)

The Federal Highway Administration (FHWA), Central Federal Lands Highway Division, in cooperation with the US Department of Agriculture Forest Service, the California Department of Transportation, and Riverside County, is proposing to improve the 8.2 miles dirt portion of California Forest Highway (FH) 224 (Bautista Canyon Road) in Riverside County, California. From the town of Valle Vista, FH 224 extends south to the community of Anza. The dirt section begins approximately 10.3 miles south of Valle Vista.

Enclosed are a revised wetland delineation report and a summary of the current anticipated impacts to wetlands and other waters of the US for each improvement alternative. The report and impact estimates have been prepared based on your comments made during the January 27, 2003 wetland delineation field review. The FHWA has also conducted two design reviews that have reduced the overall impacts to wetlands and other waters, and will continue to attempt to reduce impacts when a preferred alternative has been selected and the proposal enters the final design phase.

The FHWA is the lead federal agency and will be the applicant for the Clean Water Act Section 404 permit for the improvement. The delineation report has been field verified and we request that the USACE provide written confirmation of the accuracy of the delineations. We are in the process of identifying compensatory replacement sites for unavoidable impacts and will submit a conceptual mitigation plan to you with a request for a field review when we are completed. A Draft Environmental Impact Statement is also being prepared, which will be submitted to you for review and comment.



If you have any questions or comments regarding the report or the project, please feel free to contact Mr. Michael Vanderhoof, Environmental Protection Specialist, at 303-716-2141 (email: michael.vanderhoof@road.cflhd.gov).

Sincerely yours,

15/ Mark B. Taylor

T. Samuel Holder, P.E.

Project Manager

Enclosures

cc w/enclosure and report:

Adam Fischer, Environmental Specialist, Regional Water Quality Control Board, Santa Ana Region, 3737 Main Street, Suite 500, Riverside, CA 92501-3348

Raul Rodriguez, California Department of Fish and Game, 4775 Bird Farm Road Chino Hills, CA 91709

cc w/enclosure and w/o report:

Nova Blazej, USEPA - Region 9, Federal Activities Center, Mail Code: CMD-2, 75 Hawthorne St., San Francisco, CA 94105-3901

Mary Zambon, County of Riverside, Transportation Department, 4080 Lemon St, 8th floor, Riverside, CA 92501

Mike Florey, USFS, 1824 Commercecenter Circle, San Bernardino, CA 92408

bc: Mike Vanderhoof Sam Holder

Reading file

Central File - CA 224, Bautista Canyon Road

MVANDERHOOF:jm:L\environ\wp\ca224\corresp\03 November 20 USACE JD request\footnote{N}

The following table provides an estimate of the current expected earthwork, total ground disturbance, and impacts to waters of the US for each build The ground disturbance estimate is the total amount of new disturbance (the area within the proposed limits of excavation not including the existing alternative. The project will balance earthwork so the earthwork quantity is equal to both the cut and the fill volumes required for each alternative.

The estimate of current unavoidable impacts to waters of the US have been separated into wetlands, waters of the US (drainages), and seeps. The current estimate of total impacts to all waters of the US combined ranges from 0.25 ha (0.62 ac) for Alternative A (40kmh) and the Combination alignment (55kmh/40kmh/55kmh), to 0.20 ha (0.49 ac) for Alternative B (55kmh).

earthwork than Alternative A, and 68,000 cu. m (89,000 cu. yd) more than Alternative C. Alternative B also has 1.3 ha (3.21 ac), and 1.6 ha (3.95 ac) more ground disturbance, respectively. The nearly equal impact estimates and higher standard of the Alternative C (Combination) support its Please note that while Alternative B (55 km/h) currently has less impact to waters of the US, it requires 78,000 cu. m (102,000 cu. yd) more selection as the preferred alignment for this improvement.

			¥	Alternative		
Citoiron		40 km/h	ř	55 km/h	0	Combination
Farthwork	225,000 cu. m	294,000 cu. yd	303,000 cu. m	396,000 cu. yd	235,000 cu. m	307,000 cu. y
Ground Disturbance	16.1 ha	39.75 ac	17.7 ha	43.70 ac	16.4 ha	40.49 ac
Mettands	0.08 ha	0.20 ac	0.05 ha	0.12 ac	0.07 ha	0.17 ac
Wednesd the 11 S	0.10 ha	0.25 ac	0.12 ha	0.30 ac	0.11 ha	0.27 ac
Spens	0.07 ha	0.17 ac	0.03 ha	0.07 ac	0.07 ha	0.17 ac
Total Wet & Waters	0.25 ha	0.62 ac	0.20 ha	0.49 ac	0.25 ha	0.62 ac

ocu yd

The following tables provide a detailed estimate of unavoidable impacts to wetlands, waters of the US, and seeps by their site identification numbers from the jurisdictional delineation report.

Soboba Band of Luiseño Indians

P.O. BOX 487 • SAN JACINTO, CA 92581 • TELEPHONE (909) 654-2765

October 22, 2003

T. Samuel Holder, P.E., Project Manager US Dept. of Transportation Federal Highway Administration 555 Zang Street, Rm. 259 Lakewood, CO 80228

Dear Mr. Holder:

The SOBOBA BAND OF LUISEÑO INDIANS (hereinafter "Soboba Tribe"), a federally recognized Indian tribe and sovereign government, is formally submitting comments on the California Forest Highway 224, Bautista Canyon Road, hereinafter "the Project".

The Soboba Tribe is not necessarily opposed to this Project, however we have certain concerns in regards to the existence of cultural resources and gathering sites in the area, as well as the potential for unknown cultural resources, and their protection and avoidance. The Soboba Tribe considers the proposed Project area as well as the surrounding area to be Luiseño and Cahuilla territory, and the Soboba Tribe considers any Luiseño and Cahuilla cultural items and any Native American human remains which may be found during the development of this project to belong to the ancestors of either Soboba, Cahuilla or Ramona tribal members. We are hereby requesting that for this Project the Soboba Tribe be named as contact or representative as to the interest of Luiseño and Cahuilla cultural resources and any Native American human remains that are uncovered during the development of this Project.

We have reviewed the Draft Cultural Resource Report completed for the Project. As the report shows, there are significant Cultural resources that exist within the Project area. Although determination has been made for "significance", such determination should be made in consultation with the Soboba, Cahuilla and Ramona Tribes. Given the significant number of sites located in and around the Project area, the Soboba Tribe believes there is a high potential that other cultural resources and sacred sites exist within the Project area.

Given the significant archaeological resources within the Project area, it is the position of the Soboba Tribe that Native American monitors should be required to be present during all ground-disturbing activities conducted in connection with the Project, including further archaeological testing.

According to the California Public Resources Code, § 5097.98, if Native American human remains are discovered, the Native American Heritage commission must name a "most likely descendant," who shall be consulted as to the appropriate disposition of the remains. Given the Project's location in Soboba Luiseño/Cahuilla territory, the Soboba Tribe intends to assert its right pursuant to California law with regard to any remains or items discovered in the course of this Project. And, accordingly, the Tribe further requests that the Federal Highway

Administration and County work with them to draft an agreement, which would address any inadvertent discoveries of cultural resources, including human remains.

While the Soboba Tribe agrees with the conclusion of the report that there are at least 8 sites identified as historic properties within the APE of the Project area, we are consulting with our elders to identify other cultural concerns and will identify further concerns during the consultation and comment opportunities within the final environmental report for the project.

Generally, we agree with the adoption of the Recommendations to Resolve Adverse Effects and we support the agency's adoption of such recommendations with some proposed additions and/or changes. We request that Soboba be an invited signatory to the MOA, and that the MOA contain culturally sensitive means for alleviating impacts such as: treatment of cultural resources uncovered on the site in accordance with tribal customs and traditions, tribal monitoring and the return of ceremonial and sacred items back to the affiliated tribe for proper treatment. Such treatment could include burial in place on the Project site if the Tribe deems it appropriate. We would also like the MOA to include provisions for treatment of any Native American human remains that are uncovered during construction as there are indications of midden areas in some of the sites and because one of the Cahuilla elders had indicated that some burials may be in the area.

With regard to the curation of items at the San Bernardino County museum, we are in complete disagreement with this provision. All ceremonial items, sacred items, milling features, flakes, tools, etc., should be turned over to the affiliated Tribe for appropriate treatment. We strongly believe the treatment of these Cultural and sacred items should be left to the Tribes, to follow our customs and traditions, which would be rightfully ours in accordance with the provisions of NAGPRA.

We are in agreement with the Recommendations to Resolve Adverse Effects that specifically address issues of protecting collecting areas. It is imperative to our Tribe that collection areas remain in a natural setting so that gathering ceremonies are not disturbed by the road alignment, traffic and noise pollution.

The Report states that the project study area is within the Cahuilla traditional territory. While we agree with that to a great extent, we believe the area is also traditional Luiseño territory, as is documented in the report as "environmental characteristics" that are Luiseño, which tells us that some of the cultural material is more indicative of Luiseño culture. Our Tribe is comprised of both Luiseño and Cahuilla decent whose ancestors were known to use and travel in the Project area. We believe this was a travel corridor where both Cahuilla and Luiseño cultural resources may exist and should be taken into consideration when the drafting of the MOA is completed. The Figure 8 on page 21 of the report depicts tribal traditional territories, we do not agree with the territory borders that are depicted on that figure, we believe the Luiseño territory encompasses a larger area and would like the opportunity to provide a more accurate map.

The Soboba Tribe appreciates the opportunity to provide comments on this Project. The Soboba Tribe looks forward to working together with the Federal Highway Administration, the County and other interested agencies in protecting invaluable Native American cultural and archaeological resources found in the Project area. Allowing active tribal participation early in the Project will prevent misunderstandings and help the project move forward smoothly.

If you have any questions, please do not hesitate to contact Kim Yearyean or myself at (909) 654-2765.

RESPECTFULLY,

Boxman Morillo

Rosemary Morillo, Vice Chairperson

SOBOBA BAND OF LUISEÑO INDIANS



Central Federal Lands Highway Division

555 Zang Street, Rm. 259 Lakewood, CO 80228

SEP 2 2 2003

Refer to: HFHD-16, CA FH 224

See Addressees List:

Subject: California Forest Highway 224, Bautista Canyon Road

The Federal Highway Administration (FHWA), in cooperation with Riverside County, San Bernardino National Forest (SBNF) and the California Department of Transportation are developing a project to improve California Forest Highway 224, Bautista Canyon Road.

Enclosed please find a draft cultural resource report for the project. The report, entitled *Along the Trail of Juan Babtiste and Juan Bautista de Anza*, describes the cultural history in the project area and evaluates potential project related effects to cultural resources in compliance with Section 106 of the National Historic Preservation Act.

You are being provided a draft copy of the report for review and comment. We would also like to invite you to attend a meeting scheduled for Wednesday, October 22, 2003 at 6:00 p.m. to discuss and provide report comments to the project sponsors. The meeting will be held at the Valley Wide Recreation Center, at 43935 Acacia Avenue, Hemet, CA 92544.

We encourage you to participate in this meeting. However, if you are unable to attend, please feel free to provide written comments within 30 days of the date of this letter. We appreciate your involvement in the development of this improvement. If you have any questions, please contact Mr. Steve Hallisy at 303-716-2140.

Sincerely yours,

Samuel Holder, P.E.

Project Manager

Enclosure



Addressees List:

Manuel Hamilton, Tribal Chairman Ramona Band of Cahuilla Indians PO Box 391670 Anza, CA 92539

Antonio Heredia Jr.
Chairperson
Cahuilla Band of Mission Indians
PO Box 391760
Anza, CA 92539-1760

Rosemary Morillo, Tribal Council Cahuilla Band of Mission Indians PO Box 391760 Anza, CA 92539-1760

Robert Selgado, Tribal Chairperson Soboba Band of Mission Indians PO Box 487 San Jacinto, CA 92581-0487

Kim Yearyean
Land & Resource Manager
Soboba Band of Luiseno Indians
PO Box 487
San Jacinto, CA 92581

Rosemary Morillo PO Box 127 San Jacinto, CA 92581

William Pink 626 E. Old Second Street San Jacinto, CA 92583

Donna Largo 325 N. Western Avenue Hemet, CA 92343

> Ben Masiel PO Box 2183 Temecula, CA 92503

Bill Madrigal 41565 Terwilliger Road Anza, CA 92539 Rose Ann Hamilton 39440 Cary Road Anza, CA 92539

Lori Sisquoc 3587 McKenzie Street Riverside, CA 92504

Dr. Lowell Bean Cultural Systems Research, Inc. 675 Roxbury Palm Springs, CA 92262

John and Catherine Kitchen PO Box 860 Anza, CA 92306

Addressees w/o enclosure:

Juan Perez
County of Riverside
Transportation Department
4080 Lemon St, 8th floor
Riverside, CA 92501

Mike Florey
US Forest Service
1824 Commerce Center Circle
San Bernardino, CA 92408

Daniel McCarthy
Tribal Relations Program Manager
San Jacinto District Archaeologist
San Bernardino National Forest
PO Box 518
Idyllwild, CA 92549

Don Klima Advisory Council on Historic Preservation 12136 W. Bayaud Avenue, Room 330 Lakewood, CO 80228

Meredith Kaplan, Superintendent USDOI, NPS, Pacific West Region Juan Bautista de Anza National Historic Trail 1111 Jackson Street, Suite 700 Oakland, CA 94607



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



Transportation Department

September 18, 2003

Mr. Larry C. Smith, P.E. Division Engineer Federal Highway Administration Central Federal Lands Highway Division 555 Zang Street, Room 259 Lakewood, CO 80228

RE: FH 224, Bautista Canyon Road

Dear Mr. Smith:

Thank you for your letter of August 27, 2003; wherein you outlined funding options to proceed forward on this project.

The County of Riverside Transportation Department has reviewed the two options and would propose that we proceed with Option 1 provided in your letter. As stated in Option 1, the FHWA will perform both the final design and construction contract administration. The program agencies will fund \$10 Million for construction. Riverside County will be responsible for the construction funding shortfall, which is now estimated to be \$2 Million.

Thank you for your attention and assistance on this project. If you have any questions or need additional information, please contact me or Juan C. Perez at (909) 955-6740.

Sincerely,

George A. Johnson

Director of Transportation

GAJ:FK:sa

cc: Supervisor Venable's Office

Attn: Elaine Johnson

Mike Florey, U.S. Forest Service

Jim Stapleton, USDA Forest Service

Dennis Jacobs, California Department of Transportation

Sam Holder, FHWA

Juan C. Perez, Riverside County Transportation Dept.

Mary Zambon, Riverside County Transportation Dept.

Farah Khorashadi, Riverside County Transportation Dept.



Central Federal Lands Highway Division 555 Zang Street, Rm. 259 Lakewood, CO 80228

AUG 2 7 2003

Refer to: HFPP-16

Mr. George A. Johnson Director of Transportation County of Riverside 4080 Lemon Street, 8th Floor Riverside, CA 92502

Subject: FH 224, Bautista Canyon Road

RECEIVED

SEP 0 4 2003
Riverside County
Transportation Dept.

Dear Mr. Johnson:

Thank you for your reply concerning Riverside County's contribution of additional funds or resources to the above project. As stated in our April 10, 2003, letter, the two options offered for Riverside County to contribute to the project were:

- 1) "After the EIS is completed, the FHWA will pay for and perform both the final design and construction contract administration. The Program Agencies will fund \$10 million for construction. Riverside County shall fund the construction shortfall, which is now estimated to be \$2 million."
- 2) "After the EIS and the 30% design are completed, the project will be turned over to Riverside County to perform the final design and construction contract administration. The FHWA will retain an oversight role. Under this option, the Program Agencies will fund \$12 million for construction. Riverside County will fund the final design, contract administration, and any construction costs above \$12 million."

Your proposal is to use Option 2, except you have requested Forest Highway funds to proceed with the design. The Forest Highway construction commitment—\$12 million—would be reduced accordingly. We appreciate your desire to advance the project. We believe that, unless the County is willing to come up with its own funds to complete the design work, Option No. 1 meets our shared objective.

Unless we hear otherwise from you, we will continue to proceed in this manner. We hope you will find this approach to be acceptable and encourage Riverside County to continue pursuing other funding sources during this process. Please call Mr. Curtis Page, Forest Highway Program Coordinator, at 303-716-2057 if you have any questions.

Sincerely yours,

Larry C. Smith, P.E. Division Engineer



cc:

Mr. Jim Stapleton Acting Director of Engineering USDA Forest Service, Region 5 1323 Club Drive Vallejo, CA 94592

Mr. Dennis Jacobs Senior Transportation Engineer California Department of Transportation 1120 N Street Sacramento, CA 95814



Central Federal Lands Highway Division 555 Zang Street, Rm. 259 Lakewood, CO 80228

AUG 2 7 2003

Refer to: HFPP-16

Mr. George A. Johnson Director of Transportation County of Riverside 4080 Lemon Street, 8th Floor Riverside, CA 92502

Subject: FH 224, Bautista Canyon Road

Dear Mr. Johnson:

Thank you for your reply concerning Riverside County's contribution of additional funds or resources to the above project. As stated in our April 10, 2003, letter, the two options offered for Riverside County to contribute to the project were:

- 1) "After the EIS is completed, the FHWA will pay for and perform both the final design and construction contract administration. The Program Agencies will fund \$10 million for construction. Riverside County shall fund the construction shortfall, which is now estimated to be \$2 million."
- 2) "After the EIS and the 30% design are completed, the project will be turned over to Riverside County to perform the final design and construction contract administration. The FHWA will retain an oversight role. Under this option, the Program Agencies will fund \$12 million for construction. Riverside County will fund the final design, contract administration, and any construction costs above \$12 million."

Your proposal is to use Option 2, except you have requested Forest Highway funds to proceed with the design. The Forest Highway construction commitment—\$12 million—would be reduced accordingly. We appreciate your desire to advance the project. We believe that, unless the County is willing to come up with its own funds to complete the design work, Option No. 1 meets our shared objective.

Unless we hear otherwise from you, we will continue to proceed in this manner. We hope you will find this approach to be acceptable and encourage Riverside County to continue pursuing other funding sources during this process. Please call Mr. Curtis Page, Forest Highway Program Coordinator, at 303-716-2057 if you have any questions.

Sincerely yours,

Original Signed by Terry Haussler Larry C. Smith, P.E. Division Engineer



cc:

Mr. Jim Stapleton Acting Director of Engineering USDA Forest Service, Region 5 1323 Club Drive Vallejo, CA 94592

Mr. Dennis Jacobs
Senior Transportation Engineer
California Department of Transportation
1120 N Street
Sacramento, CA 95814



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY





July 25, 2003

Mr. Larry C. Smith, P.E.
Division Engineer
Federal Highway Adminstration
Central Federal Lands Division
555 Zang Street, Room 229
Lakewood, CO 80228

RE: FH 224, Bautista Canyon Road

Dear Mr. Smith:

Thank you for your letter of April 10, 2003 (copy attached), wherein you outlined funding options to proceed forward on this project.

The County of Riverside Transportation Department has reviewed these options, and would propose that we proceed with Option 2 provided in your letter, with a modified approach as follows:

- We understand that the project design is 30% complete. We propose that the project be turned over to Riverside County to perform the final design and construction contract administration at this stage. FHWA would retain an oversight role, which we understand would include review at the 70% and 95% plan stage and approval of the final plans:
- We understand that the total commitment made by the Program Agencies to this project is \$12 Million. We are requesting that \$800,000 be allocated to the Transportation Department for our use in selecting a consultant for the completion of the design. We also request clarification from FHWA on what process we would need to follow with regards to consultant selection if Federal Highway funds are used.
- The remaining \$11.2 Million would be allocated to project construction. We understand that the County would be responsible for obtaining the remaining construction funding, given that the estimated cost of construction is \$12 Million. We also request clarification from FHWA on what process we will need to follow to secure the disbursement of these funds (i.e., standard Caltrans process or some other variation).

July 25, 2003 Larry Smith Page 2

As this will change the responsibilities and funding currently laid out in the Project Agreement, we understand your office will be drafting a revised Project Agreement for signature by the involved agencies.

In addition to the design, the other major work effort has been the preparation of the EIS. FHWA has provided a great deal of assistance in the preparation of the EIS, and the County is very appreciative of the involvement of the FHWA and the Forest Service (particularly Sam Holder and Mike Vanderhoff from FHWA, and Mike Floury from the Forest Service). Many of the major sections of the EIS are nearing completion and are ready for public circulation. An important element of the EIS process is the consultation with the Fish and Wildlife Service. Informal consultation has taken place with all of the Resource Agencies. The Biological Assessment/Biological Evaluation is being revised after multiple reviews by the FHWA, the Forest Service, and the Fish & Wildlife Service. The BA/BE will soon be ready to submit to the Fish & Wildlife Service. The County requests that FHWA initiate formal Section 7 consultation as soon as possible.

Thank you for your attention and consideration of this request. If you have any questions or need additional information, please contact me or Juan C. Perez at (909) 955-6740.

Sincerely,

George Á. Johnson

Director of Transportation

FK:sa

Cc:

Supervisor Jim Venable
Attn: Elaine Johnson
Mel Teigen, Forest Service
Dennis Jacobs, Caltrans
Mike Florey, Forest Service
Sam Holder, FHWA

Juan Perez

Farah Khorashadi Mary Zambon



Central Federal Lands Highway Division 555 Zang Street, Rm. 259 Lakewood, CO 80228

Refer to: HFPP-16

APR 1 0 2003

RECEIVED

APR 1 7 2003

Riverside County Transportation Dept.

Mr. David E. Barnhart
Director of Transportation
County of Riverside
4080 Lemon Street, 8th Floor
Riverside, CA 92502-1090

Subject: FH 224, Bautista Canyon Road

Dear Mr. Barnhart:

We appreciated the Riverside County presentation at the California Forest Highway meeting on March 5th. Your staff did an outstanding job articulating the importance of this project and the progress that has been made to date.

We appreciate your efforts on the NEPA compliance to date. Your support, both political and financial, is essential for a successful project. We understand that your NEPA costs will exceed your original \$500,000 estimate by 50 percent or more. We also understand that the construction cost is now estimated at \$12 million. As you know, we have committed \$7.5 million in Forest Highway funds for this project.

The Program Agencies agree that this is an important Forest Highway project and that Riverside County has worked hard to advance it. However, because this road serves many uses other than forest access, we believe that Riverside County should contribute more to the overall project cost. In addition to funding all remaining NEPA costs and the right-of-way acquisition and utility relocation costs that were previously agreed to, we believe that Riverside County should continue to pursue other funding sources for construction and/or engineering. We offer two options for Riverside County to contribute additional funds or resources:

- 1) After the EIS is completed, the FHWA will pay for and perform both the final design and construction contract administration. The Program Agencies will fund \$10 million for construction. Riverside County shall fund the construction shortfall, which is now estimated to be \$2 million.
- 2) After the EIS and the 30% design are completed, the project will be turned over to Riverside County to perform the final design and construction contract administration. The FHWA will retain an oversight role. Under this option, the Program Agencies will fund \$12 million for construction. Riverside County will fund the final design, contract administration, and any construction costs above \$12 million.



We appreciate your cooperation on this important project. We look forward to your response as we continue to work with you to advance the environmental studies and preliminary design. Please call Mr. Curtis Page, Forest Highway Program Coordinator, at 303-716-2057 if you have any questions.

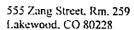
Sincerely yours,

For Larry C. Smith, P.E. Division Engineer

cc:

Mr. Mel H. Teigen Director of Engineering USDA Forest Service, Region 5 1323 Club Drive Vallejo, CA 94592

Mr. Dennis Jacobs Senior Transportation Engineer California Department of Transportation 1120 N Street Sacramento, CA 95814





JAN 17 2003

Refer to: HFHD-16

Mr. Jesse Bennett US Department of Interior Fish and Wildlife Service Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road Carlsbad, CA 92009

Dear Mr. Bennett:

Subject: California Forest Highway 224 (Bautista Canyon Road)

FWS-WRIV-1458.3

We are writing to continue informal consultation for the subject project. Enclosed please find an Informal Section 7 Consultation Document that has been prepared to identify federally listed species and their critical habitat, other sensitive species, and potential effects that would result from implementation of either of three proposed build alternatives.

A meeting has been scheduled for January 28 at 10:00 am to review these potential effects and solicit your agency's comments on the proposed build alternatives. The meeting will be held at the Riverside County Supervisor's office at 43950 Acacia, Hemet, CA 92544.

We appreciate your assistance in the development of this improvement. If you have any questions or comments, please contact Mr. Michael Vanderhoof, Environmental Protection Specialist at 303-716-2141, or by email at Michael. Vanderhoof@fhwa.dot.gov.

Sincerely yours,

.. /5/

T. Samuel Holder, P.E. Project Manager

Enclosure

cc w/o enclosures:

Mr. Rick Hoffman, County of Riverside, Transportation Department, 4080 Lemon St. 8th floor Riverside, CA 92501

Mr. Mike Florey, US Forest Service, 1824 Commerce Center Circle, San Bernardino, CA 92408

bc: M Vanderhoof

Reading file

MVANDERHOOF:jm:01/17/03:L\environ\wp\ca224\03 Jan 17 USFWS CDFG Invite





Identical letter to:

Mr. Raul Rodriguez California Department of Fish and Game 4775 Bird Farm Road Chino Hills, CA 91709

Mr. Marty Mushinske California Department of Fish and Game 4775 Bird Farm Road Chino Hills, CA 91709

United States Department of Agriculture



Natural Resources Conservation Service 950 N. Ramona Blvd., Suite 6 San Jacinto. Ca. 92582 909-654-7139 FAX 909-654-5334

December 17, 2002

T. Samuel Holder, P.E. Project Manager Federal Highway Administration 555 Zane Street, Room 259 Lakewood, Co. 80228

Subject: Completed 1006 Form for California Forest Highway 224

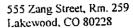
Dear Mr. Holder,

Enclosed is the completed 1006 form for the California Forest Highway 224. Just from a personal viewpoint, I have lived in the immediate area of this road for 52 years and find it hard to justify using Federal funds to pave this little used highway when these funds are needed on much more heavily traveled roads elsewhere in the valley. Was there a study done to determine the need for this work? If this road is paved, speeds will increase and accidents will go up as well. Guardrails and other safety items will be needed in many locations to keep vehicles from going over the side of the road and down the steep embankments.

Sincerely,

Robert S. Hewitt

District Conservationist, San Jacinto





DEC 1 2 2002

Refer To: HFHD-16

Mr. Bob Hewitt
US Department of Agriculture
Natural Resources Conservation Service
950 Ramona Boulevard, Suite 6
San Jacinto, CA 92582

Dear Mr. Hewitt:

Subject: California Forest Highway 224 (Bautista Canyon Road)

Farmland Conversion Impact Rating Form

The Federal Highway Administration (FHWA), Central Federal Lands Highway Division, in cooperation with the US Department of Agriculture Forest Service, the California Department of Transportation, and Riverside County, is proposing to improve a portion of California Forest Highway (FH) 224, Bautista Canyon Road.

The FH 224 is a 21.7-mile route in Riverside County between State Highway (SH) 74 at Valle Vista, and SH 371, about 1.5 miles west of the community of Anza (see enclosed map). The road traverses through the San Bernardino National Forest (SBNF) providing access to over 40,000 acres of National Forest, Indian Reservation, State, and private lands. The proposed project is to reconstruct and pave an 8.2-mile unpaved segment of roadway.

We are preparing an Environmental Impact Statement that examines three build alternatives (Alternatives A-C), and one No Action (Alternative D). The Alternatives vary based on the design speed used for the alignment. Alternative A is a combination 55/40/55 kilometers per hour (kmh) (35/25/35 mph) alignment and is a combination of the Alternative B 40 kmh (25 mph) and Alternative C 55 kmh (35 mph) alternatives.

Enclosed please find a location map and a Form AD-1006 Farmland Conversion Impact Rating Form for processing pursuant to the Farmland Protection Policy Act (FPPA). Please advise us if any of the land in the project area is subject to the FPPA and what efforts are required to ensure compliance. Please note the enclosed form identifies the total disturbance area for each alternative. The majority of the land required is within SBNF.



We appreciate your assistance in the development of this improvement. If you have any questions or require detailed information regarding alternative alignments, please feel free to contact Messrs. Samuel Holder, Project Manager, at 303-716-2052, or Michael Vanderhoof, Environmental Protection Specialist, at 303-716-2141.

Sincerely yours,

[s

T. Samuel Holder, P.E. Project Manager

Enclosure

cc w/o enclosure:

Rick Hoffman, County of Riverside, Transportation Department, 4080 Lemon St, 8th floor, Riverside, CA 92501

Mike Florey, USFS, 1824 Commercecenter Circle, San Bernardino, CA 92408 bc w/o enclosure:

S. Holder

M. Vanderhoof

Reading file

MVANDERHOOF:jm:12/10/02:L\environm\wp\ca224\ad 1006 transmittal weV

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request 12/10/02								
Name Of Project CA Forest Highway 224 (Bautista Canyon Road)		Federal Agency Involved Federal Highway Administration								
Proposed Land Use Roadway		County And State Riverside County, California								
PART II (To be completed by NRCS)		Date Request Received By NRCS								
Does the site contain prime, unique, statewide or local important farm (If no, the FPPA does not apply do not complete additional parts of		nland? of this form)		No Acres Imi	Acres Irrigated Average Farm Size					
Major Crop(s) Farmable Land In Acres:					Amount Of Farmland As Defined in FPPA					
		%		Acres:						
Name Of Land Evaluation System Used	Name Of Local Site /	ite Assessment-System Date Land Evaluation Returned								
PART III (To be completed by Federal Agency)		Site A		tive Site Rating	l Cito D					
A. Total Acres To Be Converted Directly			68.3	Site 8	71.6	0.0				
B. Total Acres To Be Converted Indirectly			0.0	0.0	0.0	0.0				
C. Total Acres In Site			68.3	71.7	71.6	0.0				
PART IV (To be completed by NRCS) Land Evaluation Information										
A. Total Acres Prime And Unique Farmland										
B. Total Acres Statewide And Local Important					· · · · · · · · · · · · · · · · · · ·					
C. Percentage Of Farmland In County Or Loc	al Govt. Unit To Be C	onverted				- 				
D. Percentage Of Farmland In Govt. Jurisdiction Wi	th Same Or Higher Rela	tive Value			-					
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of 0 to 100 F			0	0	. 0	0				
PART VI (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b)		Maximum Points								
Area In Nonurban Use										
Perimeter In Nonurban Use										
Percent Of Site Being Farmed										
Protection Provided By State And Local Government										
Distance From Urban Builtup Area										
Distance To Urban Support Services										
7. Size Of Present Farm Unit Compared To Average										
Creation Of Nonfarmable Farmland										
Availability Of Farm Support Services										
10. On-Farm Investments										
11. Effects Of Conversion On Farm Support Services						· · · · · · · · · · · · · · · · · · ·				
12. Compatibility With Existing Agricultural Use										
TOTAL SITE ASSESSMENT POINTS		160	0	0	0	0				
PART VII (To be completed by Federal Agency)										
Relative Value Of Farmland (From Part V)		100	0	0	0	0				
Total Site Assessment (From Part VI above or a local site assessment)		160	0	0	0	0				
TOTAL POINTS (Total of above 2 lines)		260	0	0	0	0				
Site Selected:	Date Of Selection				Was A Local Site Assessment Used? Yes No					
Reason For Selection:	·			<u> </u>	·- -					

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PARTI (To be completed by Federal Agency)			Date Of Land Evaluation Request 12/10/02							
Name Of Project CA Forest Highway 22	224 (Bautista Canusa B. III Federal			. 12/10/02						
Toposed Land USB Donature			eral Agency Involved Federal Highway Administration							
PART II (To be completed by NRCS)				L/IA6	erside County, California					
		Date F	Request Re	ceived E	ly NRCS					
Does the site contain prime, unique, sta (If no, the FPPA does not apply - do n	tewide or local important far	mland?		Yes	No la	orno le-i-				
(If no, the FPPA does not apply - do n Major Crop(s)	<u>- complete additional parts</u>	of this fo	f this form).					Size		
	Farmable Land In G	ovt. Jurisdiction Amount Of Farmland As Defined in F					<u>کرد.</u>			
Name Of Land Evaluation System Used			%		A	cres:	ramiand A	s Defined		
CALIF. STORIE INDEX	Name Of Local Site	Assessme	nt System				Evaluation 6		%	
PART III (To be completed by Federal Age			<u> </u>			17 ~	Evaluation F	tetumed E	NRCS 1	
A Total Agree T- D O	ncy)					Alternation	e Site Ratin		100	
A. Total Acres To Be Converted Direct	y			ite A		Site 8	Site		Site D	
B. Total Acres To Be Converted Indirect C. Total Acres In Site	tly		68.3 0.0		71.7		71.6	0.		
			68.3		0.0		0.0	0.		
ART IV (To be completed by NRCS) Lan	d Evaluation Information				71.7		71.6	0.0	0	
A. Total Acres Prime And Linious Faces					-					
D. Total Acres Statewide And Local Imp				5	-	2	0			
- · · · · · · · · · · · · · · · · · · ·)	 	<u>~</u>	 		Σ	
D. Percentage Of Farmland In Govt, Jurisdict ART V (To be completed by NRCS). I	ion With Some Call 10 Be Co	nverted			1	5	$+$ \times	 -	\mathbf{y}	
ART V (To be completed by NRCS) Land Relative Value Of Familiand To B	Such as Same Of Higher Relati	ve Value		5		5	 	 -	<u>Q</u>	
Relative Value Of Farmland To Be (Converted (See (see (see		0			<u> </u>	 		<u> </u>	
) Points)			0		0	∫ 0 ∙.		
ite Assessment Criteria (These criteria are explair	cy)	Maximum					 			
Area In Nonurban Use	ed in 7 CFR 658.5(b)	Points								
2. Perimeter in Nonurban Use				 -	 		 			
Percent Of Site Being Farmed			 		 		 	_		
Protection Provided By State And Loc Distance From It Is a Provided By State And Loc			 		 					
5. Distance From Urban Builtup Area	al Government	_	 		 					
6. Distance To Urban Support Services			 		 		·			
7. Size Of Present Farm Unit Compared										
8. Creation Of Nonfarmable Farmland	To Average		 							
Availability Of Farm Support Services			 							
10. On-Farm Investments			 							
11. Effects Of Convenies C. F.			 	-						
11. Effects Of Conversion On Farm Suppo	rt Services		┼							
12. Compatibility With Existing Agricultural	Use		 							
TOTAL SITE ASSESSMENT POINTS		160								
RT VII (To be completed by Federal Agency)			0		D	()	0		
Relative Value Of Farmland (From Part V)	··		ļ							
Total Site Assessment (From Cont V		100	o)		· · · · · · · · · · · · · · · · · · ·	- - -		
Total Site Assessment (From Part VI above or a local site assessment)		160	0				· 	0.		
TOTAL POINTS (Total of above 2 lines)		260					· 	0		
Selected:	Date Of Selection	400	0)	0		
		Was A Local Site A Yes								

555 Zang Street, Rm. 259 Lakewood, CO 80228



JUL 2 3 2002

Refer to: HFHD-16

Mr. Manuel Hamilton Tribal Chairman Ramona Band of Cahuilla Indians PO Box 391670 Anza, CA 92539

Dear Mr. Hamilton:

Subject: California Forest Highway 224, Bautista Canyon Road

We are writing to invite you to a meeting scheduled for August 3, at 8:30 a.m. to discuss the proposed archaeological and ethno-botanical fieldwork for the project. The meeting will be held at the Valley Wide Recreation Center in Hemet, CA. The address is 43935 Acacia Avenue, Hemet, CA 92544.

The purpose of the meeting will be to discuss the location of archaeological sites to be investigated, scope and schedule of fieldwork, and the identification and participation of a Native American archaeological monitor. Riverside County's contractor, Statistical Research Inc. (SRI), has budgeted for one monitor to be onsite during all of their subsurface testing. SRI requested that Mr. David Largo be considered as the tribal monitor due to his experience working on other projects. We request your concurrence or further discussion regarding the participation of Mr. Largo.

The meeting will also review the scope of work and Native American participation in the proposed ethno-botanical study for the project. Dr. Lowell Bean, Cultural Systems Research, Inc., has been contracted by Riverside County to complete the work. We have invited Dr. Bean to discuss his plans for report preparation and the involvement of traditional practitioners.

We appreciate your involvement in the development of this improvement. If you have any questions or comments, please contact Mr. Michael Vanderhoof at 303-716-2141.

Sincerely yours,

1s/ Patrick D. Flynn

T. Samuel Holder, P.E.
Project Manager



Identical letter to:

Mr. Antonio Heredia Jr., Chairperson Cahuilla Band of Mission Indians PO Box 391760 Anza, CA 92539-1760

Mr. Robert Selgado, Tribal Chairperson Soboba Band of Mission Indians PO Box 487 San Jacinto, CA 92581-0487

Ms. Patricia Byrd Soboba Band of Mission Indians PO Box 487 San Jacinto, CA 92581-0487

Mr. Don Klima Advisory Council on Historic Preservation 12136 W. Bayaud Ave., Rm 330 Lakewood, CO 80228

cc: Ms. Meredith Kaplan, Superintendent
US DOI, NPS, Pacific West Region
Juan Bautista de Anza National Historic Trail
1111 Jackson Street, Suite 700
Oakland, CA 94607

Mr. Rick Hoffman County of Riverside Transportation Department 4080 Lemon St, 8th floor Riverside, CA 92501

Mr. Mike Florey
US Forest Service
1824 Commerce Center Circle
San Bernardino, CA 92408

Mr. Daniel McCarthy US Forest Service 1824 Commerce Center Circle San Bernardino, CA 92408

Bc: M. Wanderhoof MVANDERHOOF: im: 7/23/02: L\environm\wp\ca224\August 3 cultural meeting invite2



JUL 2 3 2002

Refer To: HFHD-16

See Addressees Below:

Subject: California Forest Highway 224, Bautista Canyon Road

You have been identified as an interested party in the improvement of California Forest Highway (FH) 224, Bautista Canyon Road.

We are writing to invite you to a meeting scheduled for August 3, 2002 at 8:30 am to review the scope of work and schedule for proposed archaeological and ethnobotanical fieldwork. The meeting will be held at the Valley Wide Recreation Center in Hemet, CA. The address is 43935 Acacia Avenue, Hemet, CA 92544.

We appreciate your involvement in the development of this improvement. If you have any questions or comments, please contact Mr. Michael Vanderhoof at 303-716-2141.

Sincerely yours,

15/ Mark B. Taylor
T. Samuel Holder, P.E.

Project Manager

bc: M Vanderhoof

Reading file MVANDERHOOF:jm:7/23/02:L\environm\wp\ca224\basket meeting invite meeting invite



Addressees List:

Ms. Rosemary Morillo PO Box 127 San Jacinto, CA 92581

Mr. William Pink 626 E. Old Second Street San Jacinto, CA 92583

Ms. Donna Largo 325 N. Western Avenue Hemet, CA 92343

Mr. Ben Masiel POBox 2183 Temecula, CA 92503

Mr. Bill Madrigal 41565 Terwilliger Road Anza, CA 92539

Ms. Rose Ann Hamilton 39440 Cary Road Anza, CA 92539

Ms. Lori Sisquoc 3587 McKenzie Street Riverside, CA 92504 Mr. Rick Hoffman County of Riverside Transportation Department 4080 Lemon St, 8th floor Riverside, CA 92501

Mr. Mike Florey US Forest Service 1824 Commerce Center Circle San Bernardino, CA 92408

Mr. Daniel McCarthy US Forest Service 1824 Commerce Center Circle San Bernardino, CA 92408

Mr. Don Klima Advisory Council on Historic Preservation 12136 W. Bayaud Avenue, Room 330 Lakewood, CO 80228

Ms. Meredith Kaplan, Superintendent US DOI, NPS, Pacific West Region Juan Bautista de Anza National Historic Trail 1111 Jackson Street, Suite 700 Oakland, CA 94607

Dr. Lowell Bean Cultural Systems Research, Inc. 675 Roxbury Palm Springs, CA 92262

2000年代表现1000年代



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street San Francisco, CA 94105-3901

July 22, 2002

Michael Vanderhoof Environmental Protection Specialist Central Federal Lands Highway Division 555 Zang Street, MR 259 Lakewood, CO 80228

Dear Mr. Vanderhoof:

We are writing in regard to the proposal to Improve California Forest Highway (FH)224, Bautista Canyon Road, in Riverside County, California. The proposed action is to upgrade an unpaved segment of FH 224 between the communities of Valle Vista and Anza. The proposed project is 8.2 miles long.

EPA appreciates the Federal Highway Administration's (FHWA) efforts to solicit our additional input and to keep us informed as the project progresses. We have had the opportunity to review the April, 1994 Reconnaissance and Scoping Report on FH224 and have developed comments to assist you in the preparation of the Environmental Impact Statement (EIS) for this project. We are glad to see that the proposed project will help reduce particulate matter emissions from unpaved road use and will improve existing erosion problems. Based on our review of the Reconnaissance and Scoping Report, we recommend that the EIS focus specifically on indirect project impacts and impacts to water resources. Our comments are listed below.

Water Resources

The Reconnaissance document states that a Clean Water Act Section 404 permit will be necessary for this project, and we understand that a wetland delineation report has just been completed by your office. If an Individual Permit is required for impacts to water resources, it may be appropriate to initiate the NEPA/Clean Water Act Section 404 Integration Process Memorandum of Understanding (NEPA/404 MOU). Through this integration process, future project delays can be avoided by coordinating the NEPA process and the Section 404 process early on in project development. EPA strongly recommends engaging in the NEPA/404 MOU process where appropriate. In addition, we recommend that if wetlands are impacted, the EIS identify the value/function/type of wetland and includes a description of proposed mitigation.

Protection of Bautista Creek

The Reconnaissance document recommends that the entire 8.2 miles of the project be reconstructed. Reconstruction of this segment of FH 224 presents an opportunity to minimize impacts to Bautista Creek from FH 224. EPA supports actions that will achieve this end, such as realigning the facility away from the creek and the county recommendation to use a minimum surfaced with of 28 feet.

Indirect Impacts

The proposed project has the potential to result in indirect impacts related to 1) new development, 2) average daily traffic increases as it becomes easier to connect from Hemet to Anza, 3) new parking lots, and 4) associated increases in recreation activity, including Off Highway Vehicle use. The EIS should detail the impacts of these indirect effects.

Invasive Species

The proposed project will include new road cuts, and, presumably, new landscaping. Executive Order 13112 on Invasive Species calls for the restoration of native plant and tree species. To the extent that this project will entail new landscaping, the EIS should describe how the project will meet the requirements of Executive Order 13112 by using native species.

Thank you for this opportunity to comment. We look forward to our continued coordination with you on this project. If you have any questions or comments, please feel free to contact me at 415-972-3846 or blazej.nova@epa.gov.

Sincerely,

Nova Blazei

Federal Activities Office

cc: Dan Swenson, ACOE Sally Parry, USFWS

Leonidas Payne, EPA



Central Federal Lands Highway Division 555 Zang Street Mail Room 259 Lakewood, CO 80228

JUL 0 3 2002

Refer To: HFHD-16

Mr. Dan Swenson Regulatory Project Manager US Army Corps Of Engineers Los Angeles District PO Box 532711 Los Angeles, CA 90017-3401

Dear: Mr. Swenson

Subject: California Forest Highway 224 (Bautista Canyon Road)

The Federal Highway Administration (FHWA), Central Federal Lands Highway Division, in cooperation with the US Department of Agriculture Forest Service, the California Department of Transportation, and Riverside County, is proposing to improve the 8.2 miles dirt portion of California Forest Highway (FH) 224, Bautista Canyon Road in Riverside County, California. The highway (FH 224) extends from the town of Valle Vista south to the community of Anza. The dirt section begins approximately 10.3 miles south of Valle Vista. We have enclosed a reconnaissance and scoping report that will help describe the project.

In summary, project related coordination was initiated with your office in December 2000 through an interagency natural resource scoping meeting. The meeting was introductory and is described in the enclosed Government Inspection Report. A Notice of Intent to prepare an Environmental Impact Statement was issued on January 12, 2001, and public scoping meetings were held on January 30 and 31, 2001 in the communities of Anza and Hemet, respectively. A request for the US Army Corps of Engineers (USACE) to be a cooperating agency in the development of the improvement was sent to your office on February 14, 2001. Ms Susan Sturgess, USACE, contacted us verbally and declined the request. Since that time, we have performed a wide range of resource surveys and would like to continue coordination with your office.

Enclosed is a wetland delineation report for the project. The delineations were conducted using the guidelines in the USACE 1987 Wetland Delineation Manual. The FHWA is the lead federal agency and will be the applicant for the Clean Water Act Section 404 permit for the improvement. The FHWA is requesting the USACE verify the accuracy of the delineations and issue a jurisdictional determination. We would also like to meet with you in the field to discuss

the delineations, our potential impacts to waters of the U.S., and how we should proceed with the assessment of impacts and identification of compensatory replacement sites.

If you have any questions or comments regarding the report or the project, please feel free to contact Mr. Michael Vanderhoof, Environmental Protection Specialist, at 303-716-2141 (email: mevander@road.cflhd.gov).

Sincerely yours,

15/

T. Samuel Holder, P.E. Project Manager

Enclosures

cc w/o enclosure:

Rick Hoffman, County of Riverside, Transportation Department, 4080 Lemon St, 8th floor, Riverside, CA 92501

Mike Florey, USFS, 1824 Commercecenter Circle, San Bernardino, CA 92408

Kelly Schmoker, Environmental Specialist, Regional Water Quality Control Board, Santa Ana Region, 3737 Main Street, Suite 500, Riverside, CA 92501-3348

Sally Parry, US DOI, Fish and Wildlife Service, 2730 Loker Ave West, Carlsbad, CA 92008 Nova Blazej, USEPA - Region 9, Federal Activities Center, Mail Code: CMD-2,

The state of the s

Control of the second of the s

the professional control of agriculture programme programme and the profession of a control of a control of a

and the second s

Control of the Committee and the

75 Hawthorne St., San Francisco, CA 94105-3901

bc w/o enclosure:

Mike Vänderhööf!

Sam Holder

Central File - CA 224, Bautista Canyon Road

Reading file

MVANDERHOOF:jm:7/2/02:L\environm\wp\ca224USACE JD Request June 28, 2002.doc



United States Department of the Interior



FISH AND WILDLIFE SERVICE Ecological Services Carlsbad Fish and Wildlife Office 2730 Loker Avenue West Carlsbad, California 92008

In Reply Refer To: FWS-WRIV-1458.4

JUN 20 2002

Michael E. Vanderhoof Environmental Protection Specialist Federal Highway Administration Central Federal Lands Division 555 Zang Street Lakewood, CO 80228

Re:

Request for an Updated List of Proposed, Threatened, or Endangered Species Potentially Occurring Along California Forest Highway 224, Bautista Canyon Road, Riverside County, California (HFHD-16)

Dear Mr. Vanderhoof:

We have reviewed the information provided in your letter received by our office on May 20, 2002, to assess the potential presence of federally listed species along California Forest Highway 224. We do not have site-specific information for your project site. However, we are providing the attached list of species that occur within the general vicinity of your project to assist you in evaluating if the proposed project may affect federally listed species. We recommend that you seek assistance from a biologist familiar with your project site and listed species to further assess the potential for direct, indirect, and cumulative effects likely to result from the proposed activity. You should also contact the California Department of Fish and Game regarding Statelisted species that may occur with the project area. Please note that State-listed species are protected under the provisions of the California Endangered Species Act.

The proposed project area occurs outside the boundary of the Habitat Conservation Plan for the Stephen's Kangaroo Rat in Western Riverside County, California, March 1996, but within the known range of the Stephen's Kangaroo Rat (SKR). The regional incidental take permit will not cover impacts to the SKR in this area.

If it is determined that the proposed project may affect a federally listed species or designated critical habitat, you should initiate consultation (or conference for proposed species or critical habitat) with us pursuant to section 7 of the Endangered Species Act of 1973 (Act), as amended. Informal consultation may be used to exchange information and resolve conflicts with respect to federally listed species prior to a written request for formal consultation.

Should you have any questions regarding the species listed or your responsibilities under the Act, please call Sally Parry of my staff at (760) 431-9440.

Sincerely,

Karen A. Evans

Assistant Field Supervisor

rean Staddender

Enclosure

cc: Jeff Drongeson (California Department of Fish and Game, Chino Hills)

Mike Florey (U.S. Forest Service, San Bernardino)

Kelly Cohen (Caltrans)

Rick Hoffman (County of Riverside Transportation Department, Riverside)

Listed Endangered, Threatened, and Proposed Species that may occur along California Forest Highway 224, Bautista Canyon Road, Riverside County, California

Common Name	Scientific Name	Status	
AMPHIBIANS California red-legged frog	Rana aurora draytonii	T	
arroyo toad	Bufo californicus	E, CH	
mountain yellow-legged frog	Rana muscosa	E	
BIRDS	·		
bald eagle	Haliaeetus leucocephalus	T	
coastal California gnatcatcher	Polioptila californica californica	T	
least Bell's vireo	Vireo bellii pusilllus	Ε .	
southwestern willow flycatcher	Empidonax traillii extimus	E	
MAMMALS		-	
San Bernardino kangaroo rat	Dipodomys merriami parvus	Е, СН	
Stephen's kangaroo rat	Dipodomys stephensi	E	
?			
<u>PLANTS</u> Nevin's barberry	Berberis nevinii	Ε .	
Slender-horned spineflower	Dodecahema leptoceras	T	
INVERTEBRATES Quino checkerspot butterfly	(Euphydryas editha quino)	E, CH	

T = Threatened

PT = Proposed Threatened PE = Proposed Endangered

PD = Proposed for de-listing CH = Critical Habitat

E = Endangered



Central Federal Lands Highway Division 555 Zang Street Mail Room 259 Lakewood, CO 80228

MAY 1 5 2002

Refer To: HFHD-16

Mr. Jeff Newman
US Department of Interior
Fish and Wildlife Service
Ecological Services
Carlsbad Fish and Wildlife Office
2730 Loker Avenue West
Carlsbad, CA 92008

Attn: Karin Cleary-Rose

Dear Mr. Newman:

Subject: California Forest Highway 224 (Bautista Canyon Road)

FWS-WRIV-1458.3

The Federal Highway Administration (FHWA), Central Federal Lands Highway Division, in cooperation with the US Department of Agriculture Forest Service, the California Department of Transportation, and Riverside County, is proposing to improve the 8.2 miles dirt portion of California Forest Highway (FH) 224, Bautista Canyon Road.

The lead agency, in accordance with 50 CFR §402.07, is the FHWA. On March 12, 2001, we received a letter (FWS-WRIV-1458.3) identifying federally listed or proposed species that occur in our general project area. We would like to request an updated list so that we may ensure that all relevant species and critical habitat have been considered. Enclosed is a copy of the March 12 letter and a general location map.

We appreciate your involvement in the development of this improvement. If you have any questions or comments, please contact Mr. Michael Vanderhoof at 303-716-2141.

Sincerely yours,

./s/

T. Samuel Holder, P.E. Project Manager

Enclosure



United States Department of the Interior

NATIONAL PARK SERVICE

Pacific West Region
Juan Bautista de Anza National Historic Trail
1111 Jackson Street, Suite 700
Oakland, California 94607

IN REPLY REFER TO:

D18(PGSO-PP)

January 16, 2002

Michael Vanderhoof Central Federal Lands Highway Division Federal Highway Administration 555 Zang, Room 259 Lakewood, Colorado 80228

Dear Mr. Vanderhoof:

We appreciate the thoroughness with which the Central Federal Lands Highway Division Federal Highway Administration (FHWA) is conducting the environmental assessment of the proposed Bautista Canyon Road alignment. Thank you for including us in site review on December 11-12, 2001. This letter reiterates the concerns shared with you at the site.

Prior to receiving the FHWA plans on December 7, 2001, we envisioned that the existing roadway would be paved with some minor changes that would not substantially affect the visitor experience at Bautista Canyon. The plans and the site visit have now clarified that the proposed road project will have significant impacts to the visual and landscape character of Bautista Canyon.

This segment of road is unique along the 1200-mile long Juan Bautista de Anza National Historic Trail (Anza Trail). It is the only place with an intact chaparral plant community that encompasses the entire viewshed and is one of the few places along the trail available today that provides an experience of what the expedition members might have seen. Bautista Canyon has the status of being one of the few federal protection components of the national historic trail (See the National Trails System Act (16 U.S.C. 1241 et. seq.), and its character should be protected in perpetuity. The narrow bench of the current dirt road, which is vegetated to its edges, provides an opportunity for the tourist on the Anza Trail to travel within this chaparral environment while also viewing the riparian vegetation of the canyon at several locations. It is one of the special places along the historic route to which my staff and I direct visitors.

The National Park Service (NPS) has three major concerns with the proposed project. First, the extensive cuts and fills required to create a paved road design that meets American Association of State Highway and Transportation Officials (AASHTO) standards at the proposed design speeds will completely change the visual character of the roadway and the experience of the user.

्रव्युक्तकृति का हिएए के जन क्षा कर है। यह क्षा है निक्

Michael Vanderhoof January 16, 2002 Page 2 of 3

Second, and related to the first, the cuts and fills will expose large areas of soil to invasion by exotic species that are noticeably absent from the canyon now. The potential establishment of these species along the roadway could threaten the integrity of the entire canyon ecosystem. Protecting the native environment is superior to revegetation. Third, the new road design will exclude recreational users—hikers and equestrians—who now use the roadway to get through the canyon.

Given the expected major impacts to the viewshed and the integrity of the plant community, we wonder if the purpose and need of the project could be met in ways other than paving the road. We hope that the environmental impact statement will include at least one viable alternative that does not include paving the road, but instead relies on measures such as improvements to existing roads.

For the project as proposed, we recommend that FHWA explore these added measures:

- Consider a design speed reduced below the 25 and 35 mph design speeds now proposed. Reasons given for paving the road do not seem dependent upon the speed of travel. A lower design speed of 20 mph or even 15 mph would not affect the availability of the road as an alternate escape route in case of emergency and would still provide fire access for the USDA Forest Service, and it would likely reduce impacts to the character of the canyon.
- Extend revegetation beyond erosion control to reestablishing the native plant communities now present.
- Consider shaping and coloring cuts to reduce visual impacts.
- Consider the use of retaining walls to reduce the extent of fill areas.
- Consider the shaping of the fills to emulate the existing topography.

Clearly, there is no potential for including a recreational trail along the road in the project area. As a replacement for this use, in a June 9, 2001 letter, the Forest Service agreed to consider an off-road, non-motorized, shared use trail through Bautista Canyon in its Forest Plan Revision process. It would seem that funding for implementing such a trail should be included in the roadway project as a possible mitigation measure for significant impacts of the road project. That way, the current use would not be displaced and could be improved in the future.

FHWA has also offered to include in the plans roadway turnouts for interpretive purposes. One such site was located during the onsite visit and will be evaluated for its appropriateness in the visual analysis. We appreciate this consideration.

Michael Vanderhoof January 16, 2002 Page 3 of 3

We hope these suggestions are helpful. The NPS looks forward to continuing involvement in this project. You can contact me by telephone at 510/817-1438 or by mail at the letterhead address. The NPS e-mail is currently unavailable.

Sincerely,

Meredith Kaplan, Superintendent

Juan Bautista de Anza National Historic Trail

cc:

Sam Holder, Project Manager, FHWA

Mary Zambon, Senior Transportation Planner, Riverside County

Gale Zimmerman, Forest Supervisor

Mike Florey, Director, Engineering and Recreation, San Bernardino National Forest

The National Park Service cares for special places saved by the American People so that all may experience our heritage.

EXPERIENCE YOUR AMERICA



Central Federal Lands Highway Division 555 Zang Street Mail Room 259 Lakewood, CO 80228

OCT 1 7 2001

Refer To: HFHD-16

Torres-Martinez Desert Cahuilla Indians Mr. Alberto Ramirez PO Box 1160 Thermal, CA 92274

Dear Mr. Ramirez:

Subject: CA FH 224, Bautista Canyon Road

Enclosed please find a copy of a letter and a cultural resources background report sent to you on August 1, 2001. We are re-sending the material because we have not received a response and want to make sure that you have the opportunity to review our project.

Please review the enclosed information and contact us if you have any concerns. We encourage you to participate in the project by giving us your comments. You may send comments to Messrs. Michael Vanderhoof, Environmental Protection Specialist, or Sam Holder, Project Manager, at the address noted above. They may be contacted for questions at (303)716-2141 and (303)716-2152, respectively.

Sincerely yours,

15/

Richard Cushing, P.E. Environmental Planning Engineer

Enclosure

bc: M Vanderhoof

R. Cushing

yc: reading file

MVANDERHOOF:jm:09/26/01:L\environm\wp\ca224

Identical letter to:

Twenty-Nine Palms Band of Mission Indians Anthony Madrigal Cultural Specialist 46-200 Harrison Place Coachilla, CA 92236

Pechanga Band of Mission Indians Ben Maciel PO Box 1477 Temecula, CA 92593

Pauma & Yuima Christobal C. Devers, Chairperson PO Box 369 Pauma Valley, CA 92061

Pala Band of Mission Indians Lenore Volturno PO Box 50 Pala, CA 92059

Cabazon Band of Mission Indians John A. James, Chairperson 84-245 Indio Springs Drive Indio, CA 92201

Agua Caliente Band of Cahuilla Indians Tom Davis 960 E Tahquitz Way, #106 Palm Springs, CA 92262

Anthony J Andreas, Jr. 3022 W Nicolet Street Banning, CA 92220

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, NOOM 384 SACRAMENTO, CA 95014 (916) 653-4082 Foz (916) 657-5390 Web Site www.nonc.ca.gov



May 4, 2001

Michael Vanderhoff U.S. Department of Transportation Central Federal Lands Highway Division 555 Zang Street, Mail Room 259 Lakewood, CO 80228

Proposed Bautista Canyon road Project (SCH#200101110) Riverside County.

Gent By Fax: (303) 969-5903

Pages Sent: 3

Dear Mr. Vanderhoff;

A record search of the sacred lands file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area, Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

knowledge is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend other with specific knowledge. A minimum of two weeks must be allowed for responses after notification.

If you receive notification of change of addresses and phone numbers from any these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4040.

Sincerely,

De Wend

Rob Wood

Associate Governmental Program Analyst

NATIVE AMERICAN CONTACTS Riverside County May 5, 2001

Agua Caliente Band of Cahuilla Indians Richard Milanovich, Chairperson 360 E. Tahquitz Way, #106 Cahuilla Palm Springs, CA 92262 (619) 325-5673 (619) 325-0593 Fax Pala Band of Mission Indians
Robert Smith, Chairperson
P.O. Box 43
Pala, C A 92059
Cupeno
(760) 742-3784
(760) 742-1411 Fax

La Jolla Band of Mission Indians
Jack Musick, Chairperson
22000 Highway 76
Pauma Valley, CA 92061
(760) 742-3771/72

Pauma & Yuima Christobal C. Devers, Chairperson P.O. Box 369 Luiseno Pauma Valley, C A 92061 (760) 742-1289 (760) 742-3422 Fax

Cabazon Band of Mission Indians
John A. James, Chairperson
84-245 Indio Springs Drive Cahuilla
Indio; CA 92201
(760) 342-2593
(760) 347-7880 Fax

Pechanga Band of Mission Indians
Mark Масато, Chairperson
P.O. Box 1477 Luíseno
Temecula, С А 92593
(909) 676-2768
(909) 699-6983 Fax

Cahuilla Band of Mission Indians
Michelle Salgado, Spokesperson
P.O. Box 391760 Cahuilla
Anza, CA 92539
(909) 763-5549
(909) 763-2808 Fax

Ramona Band of Mission Indians
Joseph Hamilton, Representitive
P.O. Box 391670 Cahuiila
Anza, C A 92539
(909) 487-0822

Morongo Band of Mission Indians
Mary Ann Andreas, Chairperson
11581 Potrero Rd. Cahuilla
Banning, C A 92220
(909) 849-4697/98
(909) 849-4425 Fax

Rincon Band of Mission Indians
John Currier, Chairperson
P.O. Box 68
Valley Center, C A 92082
(760) 749-1051
(760) 749-8901 Fax

This list is current only so of the date of this document.

Distribution of this list does not policy any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 1007.34 of the Public Production Code and Exetion 1007.34 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regards to the cultural executement for the proposed Saurises, Carryon Road Project (SCH# 2001)1110), Riverside County.

NATIVE AMERICAN CONTACTS **Riverside County** May 5, 2001

Report Rand of Mission Indians

Carl Lopez, Chairperson

P.O. Box 487

Luiseno

PO Box 1160

Cahuilla

San Jacinto, CA 92381

909) 654-2765 =ax: (909) 654-4198 Ernest Morreo

Thermal, CA 92274

(760) 397-0300

(760) 397-8146 Fax

Torres-Martinez Desert Cahuilla Indians

Art Lopez, Chairperson

PO Box 1160

Cahuilla

Luiseno

Cahuilla

Chemehuevi

Anthony J. Andreas, Jr.

3022 W. Nicolet Street

Banning, CA 92220

(909) 849-3844

Cahuilla

Thermal, CA 92274 (760) 397-0300 (760) 397-8146 Fax

Twenty-Nine Palms Band of Mission Indians

Dean Mike, Chairperson

46-200 Harrison Place

Coachilla, CA 92236

(760) 775 5566

(760) 775-4639 - Fax

Santa Rosa Band of Mission Indians

Torres-Martinez Desert Cahuilla Indians

Anthony Largo, Spokesman

325 N. Western Avenue

Cahuilla

Alvino Síva

2034 W. Westward

Banning, CA 92220

(909) 849-3450

Hemet, CA 92343

San Luis Rev Band of Mission Indians

Henry Contreras, Cultural Resources Representative

1763 Chapulin Lane

Falibrook CA 92028

Luiseno Cupeno

(760) 728-6722 - Home

(760) 207-3618 - Cell

Katherine Saubel

P.O. Box 373

Banning, CA 92220 (909) 849-8304

Cahuilla

San Luis Rey Band of Mission Indians

Russell Romo, Captain

2302 Carriage Circle

Oceanside, CA 92056

Luiseno Cupeno

(760) 724-8505

(760) 757-6749 - Fax

This list is current only to of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 2007.24 of the fraction of the fraction

This list is only applicable for contacting local Native Americans with regards to the cultural assessment for the proposed Bautish Canyon Road Project (SCHF 200101110), Riverside County.



United States Department of the Interior

NATIONAL PARK SERVICE

Pacific West Region
Pacific Great Basin Support Office
600 Harrison Street, Suite 600
San Francisco, California 94107-1372

IN REPLY REFER TO: .

D18(PGSO-PP)

April 27, 2001

Gene Zimmerman
Forest Supervisor
U.S.D.A. Forest Service
San Bernardino National Forest
1824 Commercenter Circle
San Bernardino, CA 92408

Dear Mr. Zimmerman:

We had hoped to discuss the Bautista Canyon Road paving project with the USDA Forest Service at the April 16, 2001, meeting held by the Federal Highway Administration in Hemet. Since no Forest Service representative attended the meeting, we hope to initiate discussions with this letter.

The National Park Service (NPS) and other federal agencies share responsibility for the 1200-mile Juan Bautista de Anza National Historic Trail (Anza Trail) in those areas where the trail crosses federal land. According to the National Trails System Act, when the U.S. Congress authorized the trail in 1990, only federal segments automatically became official components of the trail. (Nonfederal segments become a part of the national trail through a certification process.) Even though the NPS administers the Anza Trail, management of the trail remains with the local managing agency or landowner. This cooperative management system by federal trail managers was bolstered by a recent memorandum of understanding signed by the NPS, USDA Forest Service, Bureau of Land Management, Federal Highway Administration, and the National Endowment for the Arts. A copy is enclosed for you review.

Bautista Canyon Road is identified in the Comprehensive Management and Use Plan (CMP) for the Juan Bautista de Anza National Historic Trail (Anza Trail) as a "high potential" federal trail segment because it is on the historic route and its natural setting has the power to evoke a sense of what the expedition members may have encountered. Contributing to this evocativeness is the fact that part of the road is dirt and feels more like a trail than an automobile thoroughfare. Few places directly on the historic route and having a similar landscape setting remain along the entire Anza route. For these reasons, we have been particularly interested in the proposed paving project along Bautista Canyon Road.

Gene Zimmerman April 27, 2001 Page 2 of 2

The CMP for the Anza Trail calls for two kinds of continuous commemorative routes on or closely parallel to the historic route: an auto route and a non-motorized recreational route. A continuous auto route has been identified, and plans are underway with the County of Riverside and the California Department of Transportation to mark Bautista Canyon Road as a portion of the auto route for the Anza Trail. However, we expect that road paving will increase the amount and speed of traffic on the road, changing the character of the experience. Therefore, we would like the USDA Forest Service to consider including pullouts with interpretive information, perhaps with an overlook of Bautista Creek, that would allow the traveler better appreciation of the experience of the Anza expeditions.

Finding a continuous recreation route is a greater challenge than finding a continuous auto route. During the development of the CMP, local proponents indicated that the dirt section of the road reduced and slowed traffic making it a potential recreational route. Paving the road would remove that potential. As an alternative, we would like the USDA Forest Service to consider including an off-road, non-motorized, shared use trail through Bautista Canyon during preparation of its Forest Plan, which we understand is underway now. If such a trail alignment were shown on the plan, then we could seek funds to implement it at a later date.

We would like to discuss these and other options to recognition of the Juan Bautista de Anza National Historic Trail that you might propose. You can contact me by telephone at 415/427-1438, by e-mail at meredith_kaplan@nps.gov, or by mail at the letterhead address.

Sincerely,

Meredith Kaplan, Superintendent

Therearch Kaplan

Juan Bautista de Anza National Historic Trail

Enclosure

cc:

Mike Florey, Forest Engineer \ Michael E. Vanderhoof, FHA

T. Samuel Holder, FHA

Paul Fransden, Riverside County Parks and Open Space District Jeannie Gillen, Amigos de Anza

The National Park Service cares for special places saved by the American People so that all may experience our heritage.

The state of the s

EXPERIENCE YOUR AMERICA



Central Federal Lands Highway Division 555 Zang Street Mail Room 259 Lakewood, CO 80228

APR 1 7 2001

Refer to: HPD-16

US Environmental Protection Agency, Region 9 Federal Activities Center, Mail Code: CMD-2 Ms. Elizabeth Varnhagen 75 Hawthorne San Francisco, CA 94105-3901

Dear Ms. Varnhagen:

Subject: California Forest Highway 224 - Bautista Canyon Road

We appreciate your interest in this proposed improvement. Enclosed please find a copy of our project Reconnaissance and Scoping Report. This document was used to help establish a game plan for preliminary engineering and environmental studies. Although the data in this report will be updated as newer information is obtained, it contains an explanation of how and why the project is being proposed.

We hope that you find this information useful. We are available to meet, anytime, if you would like additional information regarding this project. We will contact you and invite you to our next interagency project meeting when the date and location have been determined.

If you have any questions, please call Mr. Michael Vanderhoof at 303-716-2141.

Sincerely yours,

/5/

Richard J. Cushing Environmental Planning Engineer

Enclosure

Bc: M., Vanderhoof

R. Cushing

Yc: reading file

Central File: CA FH 224, Bautista Canyon Road

MVANDERHOOF:jm:4/16/01:L\environm\wp\ca224\usepa.doc

AL

Forest Service San Bernardino National Forest 1824 S Commercenter Circle San Bernardino, CA 92408 909-383-5588 (Voice) 909-383-5770 (FAX) 909-383-5616 (TTY)

File Code: 7740

Date: April 2, 2001

Mr. James W. Keeley, P.E. U.S. Department of Transportation Federal Highway Administration Central Federal Lands Highway Division 555 Zang Street, Room 259 Lakewood, Colorado 80228

Dear Mr. Keeley:

This is in response to your February 14, 2001 letter requesting the US Forest Service to participate as a cooperating agency in the Bautista Canyon Forest Highway Project, FH 224. We apologize for any misunderstanding as to our status, since we were signatory to the original project proposal in 1990, and supported the reintroduction of this project into the Forest Highway Program in 2000, our assumption was the we were already a cooperating agency.

Director of Engineer and Recreation, Mike Florey, will be the designated San Bernardino National Forest lead contact for this project. The following employees of the San Bernardino National Forest, or other designees, will be included on the SEE Team on an as-needed basis:

Doug Pumphrey, District Ranger San Jacinto Ranger District Jon Regelbrugge, District Resource Officer, San Jacinto Ranger District Anne Poopatanapong, District Biologist, San Jacinto Ranger District Steve Loe, Forest Biologist, Supervisor's Office Melody Lardner, Forest Botanist, Supervisor's Office Daniel McCarthy, Acting Forest Archaeologist, Supervisor's Office

Please accept our apologies for the delay in response due to our misunderstanding of your request.

GENE ZIMMERMA

Forest Supervisor





United States Department of the Interior

Fish and Wildlife Service

Ecological Services
Carlsbad Fish and Wildlife Office
2730 Loker Avenue West
Carlsbad, California 92008



In reply refer to: FWS-WRIV-1458.3

MAR 1 2 2001

Michael E. Vanderhoof Environmental Protection Specialist Federal Highway Administration Central Federal Lands Division 555 Zang Street Lakewood, CO 90228

Re: California Forest Highway 224, Bautista Canyon Road, Riverside County, California (HPD-16.5)

Dear Mr. Vanderhoof:

We have received your electronic mail dated February 15, 2001, requesting an evaluation for the potential of federally listed species to occur in the vicinity of the proposed project in Riverside County. We have also reviewed project information provided by your letter dated February 14, 2001. To assist you in evaluating the potential effects of the proposed project on federally listed or proposed species and designated or proposed critical habitat, we are providing the attached list of species that occur in the general project area. We recommend that you seek assistance from a biologist familiar with the proposed project and listed species in the project area to more definitively assess the potential for direct, indirect, and cumulative effects likely to result from the proposed activity. You should also contact the California Department of Fish and Game for State-listed and sensitive species that may occur in these areas. Please note that the State-listed species are protected under the provisions of the California Endangered Species Act.

If it is determined that the proposed project may affect a listed or proposed species, you should initiate consultation (or conference for proposed species) with the Service pursuant to section 7 of the Endangered species Act (Act) of 1973, as amended. Informal consultation may be used to exchange information and resolve conflicts with respect to listed species prior to a written request for formal consultation.

Should you have any questions regarding the species listed or your responsibilities under the Act, please contact Karin Cleary-Rose or Jill Terp at our office at (760) 431-9440.

Sincerely.

if Newman

Acting Assistant Field Supervisor

Attachment

cc:

CDFG, Jeff Drongesen Caltrans, Kelly Cohen

Listed endangered, threatened, and proposed species that may occur in the vicinity of the California Forest Highway 224, Bautista Canyon Road Project Area Riverside County, California

Common Name	Scientific Name	Status*
Plants Slender-homed spineflower Santa Ana River woolly-star	Dodecahema leptoceras Eriastrum densifolium ssp. sanctorum	E E
Invertebrates Quino checkerspot butterfly	Euphydryas editha quino	Е (РСН)
Amphibians Mountain yellow-legged frog Arroyo toad	Rana muscosa Bufo californicus	PE E (CH)
Birds Coastal California gnatcatcher Southwestern willow flycatcher Least Bell's vireo	Polioptila californica californica Empidonax traillii extimus Vireo bellii pusillus	T (CH) E E
Mammals San Bernardino kangaroo rat Stephens' kangaroo rat	Dipodomys merriami parvus Dipodomys stephensi	E (PCH)

*Status

E = endangered

PE = proposed endangered

T = threatened

CH = designated critical habitat (near project area)

PCH = proposed critical habitat (near project area)



United States Department of the Interior Fish and Wildlife Service Ecological Services Carlsbad Fish and Wildlife Office 2730 Loker Avenue West Carlsbad, California 92008



MAR - 2 2001

In reply refer to: FWS-WRIV-1458.1

Mary Zambon
Senior Transportation Planner
Riverside County Transportation and Land Management Agency
4080 Lemon Street, 8th Floor
Riverside, California 92502

Re:

Notice of Preparation of Draft Environmental Impact Report/Environmental Impact Statement for Improvement to California Forest Highway 224, Bautista Canyon Road, Riverside County, California

Dear Ms. Zambon:

We have reviewed the notice of preparation (NOP) for a draft environmental impact report/environmental impact statement for Improvement to California Forest Highway 224, Bautista Canyon Road (DEIR/EIS), dated January 22, 2001, and received by our office January 24, 2001; and the accompanying project description. The proposed project is the paving of an 8.2 mile section of Bautista Canyon Road. Bautista Canyon Road is a 21.7 mile road in Riverside County running between the town of Valle Vista and State Highway 371, about 1.5 miles west of the community of Anza through the San Bernardino National Forest.

In 1985 the U.S. Forest Service (USFS) granted Riverside County (County) and the U.S. Department of Agriculture an easement across USFS lands, consequently, the County is responsible for the maintenance of the road. The road's functional classification is rural collector. The combined 13.5 miles of the road on each side of the 8.2 mile proposed project segment are paved. Bautista Canyon Road provides access to over 40,000 acres of National Forest, Indian Reservation, State and private land.

We offer the following comments and recommendations regarding project-associated biological impacts based on our review of the NOP and our knowledge of declining habitat types and species within Riverside County. We provide these comments in keeping with our agency's mission to work "with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people." Specifically, we administer the Endangered Species Act of 1973, as amended (Act). Section 7 of the Act requires Federal agencies to consult with the Fish and Wildlife Service (Service) should it be determined that their actions may affect federally listed threatened or endangered species. Section 9 of the Act prohibits the "take" (e.g., harm, harassment, pursuit, injury, kill) of federally listed wildlife.

"Harm" is further defined to include habitat modification or degradation where it kills or injures wildlife by impairing essential behavioral patterns including breeding, feeding, or sheltering. Take incidental to otherwise lawful activities can be authorized under the provisions of sections 7 (Federal consultations) and 10 (habitat conservation plans) of the Act. We also provide comments on public notices issued for a Federal permit or license affecting the Nation's waters pursuant to the Clean Water Act.

To facilitate the evaluation of the proposed project from the standpoint of fish and wildlife protection, we request that the DEIR/EIS contain the following specific information.

- 1. A description of the environment in the vicinity of the project from a local and regional perspective. This description should include a vegetation/habitat map of the project area and surrounding areas.
- 2. A complete discussion of the purpose and need for the project and each of its alternatives.
- 3. A complete description of the proposed project, including the limits of the project area. This project description should include all practicable alternatives that have been considered to avoid and minimize project impacts, to the maximum extent practicable, to sensitive habitats, (e.g., coastal sage scrub, wetlands), and endangered, threatened, or sensitive species; and measures to mitigate unavoidable impacts.
- 4. Quantitative and qualitative assessments of the biological resources and habitat types that will be impacted by the proposed project and its alternatives. An assessment of direct, indirect, and cumulative project impacts to fish and wildlife associated habitats of the project (e.g., increased population, increased development, and increased traffic). All facets of the project (e.g., construction, implementation, operation, and maintenance) should be included in this assessment.

This assessment should include a list of Federal candidate, proposed, or listed species; State-listed species; and locally sensitive species that are on or near the project site, including a detailed discussion of these species and information pertaining to their local status and distribution. Therefore, we recommend comprehensive, current biological surveys be performed on the project site, including directed surveys for all potentially occurring Federal and State-listed species using standard survey protocols. Investigators conducting surveys for federally listed species must be qualified biologists. We are particularly interested in any and all information and data pertaining to potential impacts to populations of federally listed or proposed species and their proposed critical habitats, including the endangered Quino checkerspot butterfly (Euphydryas editha quino, "Quino"), arroyo toad (Bufo microscaphus caltfornicus), San Bernardino kangaroo rat (Dipodomys merriami parvus), least Bell's vireo (Vireo bellii pusillus), southwestern willow flycatcher (Empidonax traillii extimus), slender-horned spine flower (Dodecahema leptocercas) and Santa Ana River woolly-star (Eriastrum densifolium ssp. sanctorum), the threatened coastal California gnateatcher (Polioptila californica

californica) and the proposed endangered mountain yellow-legged frog (Rana muscosa). In the prject area, critical habitat has been designated for arroyo toad and proposed for the Quino checkerspot butterfly, and San Bernardino kangaroo rat. The DEIR/EIS should disclose all impacts to these sensitive resources including those incurred from changes in hydrology and increased human access to the forest. Project related impacts may occur outside of the area directly affected by the proposed project. We recommend that you make your cumulative impacts analysis broad enough to include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the area affected by the direct and indirect effects of your project.

- 5. Proposed measures to be taken to avoid, minimize, and mitigate significant impacts to biological resources should be discussed in detail.
- 6. Maps and tables summarizing specific acreages and locations of all habitat types, and the number and distribution of all Federal candidate, proposed, or listed species; State listed species; and locally sensitive species, on or near the project site that may be affected by the proposed project or project alternatives should be included in the DEIR/EIS
- 7. A detailed analysis of impacts of the proposed project on the movement of wildlife, and proposed measures to avoid and minimize impacts, and mitigate unavoidable impacts.
- 8. An assessment of potential impacts to wetlands and jurisdictional waters of the United States. Section 404 of the Clean Water Act prohibits the unauthorized discharge of dredged or fill material into such waters, including wetlands. This section also provides that the U.S. Army Corps of Engineers (Corps) may issue permits for discharges of dredged or fill material into jurisdictional waters and wetlands. Potential areas of Corps jurisdiction should be evaluated and wetlands should be delineated using the methodology set forth in the Corps' Wetland Delineation Manual (Environmental Laboratory 1987). The DEIR/EIS should disclose all impacts to jurisdictional waters and wetlands, and proposed measures to be taken to avoid and minimize impacts, and mitigate unavoidable impacts.
- 9. A hydrological analysis of Bautista Creek identifying existing and post project conditions should be included. In areas where the proposed project would encroach upon normal (up to 100 year events) creek flows, the effects of the road on hydrologic functions should be identified and mitigation measures to alleviate those effects should be identified. Analysis should also be conducted to determine the effects of this project on fluvial processes and riparian scrub, woodland and alluvial fan sage scrub communities occupied by the San Bernardino kangaroo rat, arroyo toad, mountain yellow legged frog, least bell's virco and southwestern willow flycatcher. We encourage the County to design the project to keep the road and its stream crossings out of the 100 year flood plain.
- 10. Completion of the proposed project will provide the most direct and fastest route between the community of Anza and the Hemet area. The DEIR/EIS should include a discussion

of changes in level of use of the road and the need for future improvements to the road as its level of service increases.

- 11. Identification of methods to be employed to prevent the discharge and disposal of toxic and/or caustic substances, including oil and gasoline, on the project site during and after construction. Specifically effects to water quality from road runoff should be addressed.
- 12. A discussion assessing the effects of the proposed project on the western Riverside County Multiple Species Habitat Conservation Planning (MSHCP) effort. The proposed project occurs within conservation area identified in the MSHCP proposed Alternative 1. Project related effects to wildlife movement and conservation management within Alternative 1 should be addressed given project related increases in vehicular traffic and human access.

We appreciate the opportunity to comment on the referenced NOP for potential impacts on sensitive and endangered species, wildlife and wetlands. If you should have any questions pertaining to these comments, please contact Karin Cleary-Rose of my staff at (760) 431-9440.

Sincerely.

Jai Jim A. Bartel

Assistant Field Supervisor

cc: Glenn Black (CDFG Chino Hills)

Kate Kramer (CDFG Chino Hills)

Richard Lashbrook (Riverside County TLMA)

Jerry Jolliffe (Riverside County Planning Department)



United States Department of the Interior

Fish and Wildlife Service Ecological Services Carlsbad Fish and Wildlife Office 2730 Loker Avenue West Carlsbad, California 92008



In reply refer to: FWS-WRIV-1458.2

MAR 1 2 2001

James W. Keeley, P.E.
Project Development Engineer
U.S. Department of Transportation
Federal Highway Administration
555-Zang Street, Room 259
Lakewood, Colorado 80228

Attn: Michael Vanderhoof, Environmental Protection Specialist

Re: California Forest Highway 224, Bautista Canyon Road, Riverside County, California

(HPD-16.5)

Dear Mr. Keeley:

We have received your request dated February 14, 2001, to be a cooperating agency per 40 CFR1501.6 of the implementing regulations of the National Environmental Policy Act of 1969 (as amended) in preparation of an Environmental Impact Statement on the above referenced project. Due to concerns regarding our participation as a cooperating agency, we are unable to be a formally cooperating agency. However, we are available to continue to work with you throughout the planning stages of the proposed project to provide technical assistance. Please contact Karin Cleary-Rose or Jill Terp at our office regarding this project at (760) 431-9440.

Sincerely,

Jeff Newman

Acting Assistant Field Supervisor

Listed endangered, threatened, and proposed species that may occur in the vicinity of the California Forest Highway 224, Bautista Canyon Road Project Area Riverside County, California

Common Name	Scientific Name	Status*
Plants Slender-horned spineflower Santa Ana River woolly-star Dodecahema leptoceras Eriastrum densifolium ssp. sanctorum		E E
Invertebrates Quino checkerspot butterfly	Euphydryas editha quino	E (PCH)
Amphibians Mountain yellow-legged frog Arroyo toad	Rana muscosa Bufo californicus	PE E (CH)
Birds Coastal California gnatcatcher Southwestern willow flycatcher Least Bell's vireo	Polioptila californica californica Empidonax traillii extimus Vireo bellii pusillus	T (CH) E E
<u>Mammals</u> San Bernardino kangaroo rat Stephens' kangaroo rat	Dipodomys merriami parvus Dipodomys stephensi	E (PCH) E

*Status

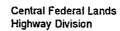
E = endangered

PE = proposed endangered

T = threatened

CH = designated critical habitat (near project area)

PCH = proposed critical habitat (near project area)



555 Zang Street, Room 259 Lakewood, CO 80228



MAR 0 5 2001 In Reply Refer To: HPD-16.5

Mr. Louis Flores
California Department of Transportation
464 W Fourth Street, 6th floor, MS 1030
San Bernardino, CA 92401-1400

Dear Mr. Flores:

The Federal Highway Administration (FHWA), Central Federal Lands Highway Division, in cooperation with the US Department of Agriculture Forest Service (USDA-FS), the California Department of Transportation (CALTRANS), and Riverside County, is proposing to improve a portion of California Forest Highway (FH) 224, Bautista Canyon Road.

FH 224 is a 21.7-mile route in Riverside County between State Highway (SH) 74, at the town of Valle Vista, and SH 371, about 1.5 miles west of the community of Anza (see attached map). The road traverses through the San Bernardino National Forest (SBNF). Bautista Canyon Road provides access to over 40,000 acres of National Forest, Indian Reservation, State, private lands and various forest multiple use functions. It links the communities of Hemet and Anza to the southern portion of the SBNF. The project proposes to pave an 8.2-mile segment of this roadway, which is currently an unpaved dirt road.

The 8.2-mile segment of the route was recommended for reconnaissance and scoping during the November 9, 1993, California Public Lands Highways (PLH) program meeting. The Reconnaissance and Scoping Report for FH 224 was prepared in 1994 as a guide for PLH agencies, which includes the USDA-FS, CALTRANS, and the FHWA. These three agencies are responsible for administering the Public Lands Highway (PLH) program and are collectively referred to as the "Tri-Agencies." Following development of the Reconnaissance and Scoping Report for FH 224, the project was identified for funding and is currently in the project development phase.

To guide this project through the environmental process, a Social, Economic, and Environmental (SEE) Study Team consisting of representatives from the FHWA, USDA-FS, CALTRANS and Riverside County was formed in December 2000. The initial SEE Team meeting was held on December 13, 2000. Public meetings regarding the proposed project were held on January 30 and 31, 2001 in Anza and Valle Vista, respectively.

The FHWA, as the lead agency, will prepare an Environmental Impact Statement (EIS) for the 8.2-mile proposed highway project, following the Council on Environmental Quality's (CEQ) "Regulations for Implementing the Procedural Provisions of the National Environmental Policy

Act (NEPA)" of November 29, 1978, 40 CFR Parts 1500 through 1508. In accordance with CEO REG 1501.6, the FHWA is requesting that your agency become a cooperating agency in the development of this project.

The views of cooperating agencies will be sought through all stages of the development of the EIS. This coordination is intended to preclude any subsequent and duplicative review by cooperating agencies. This coordination will also aid in identifying all reasonable alternatives any social, economic, and environmental impacts; and measures to minimize adverse impacts which may result from this highway improvement.

Enclosed is a copy of FHWA's "Guidance on Cooperating Agencies" which outlines the responsibilities of FHWA and of cooperating agencies. More specific responsibilities related to this project may have to be worked out during the project's scoping process.

We are requesting cooperating agency status from the following agencies: the US Forest Service, the US Fish and Wildlife Service, the US Army Corps of Engineers, the US Environmental Protection Agency, the Santa Ana Regional Water Control Board, the California Department of Transportation and Riverside County.

We look forward to your response to this request and your role as a cooperating agency on this project. If you have questions or need additional information, please contact Mr. Michael Vanderhoof, Environmental Protection Specialist, at 303-716-2141.

Sincerely yours,

James W. Keelev, P.E.

Project Development Engineer

samo W Kuly

Enclosure

be w/o enclosure RIC Vanderhoof - file HPD-16.5

Central files CA FH 224, Bautista Canyon Road

MVANDERHOOF: im: 03/02/01: L\Environm\wp\ca224\Vanderhoof1. wpdd

DEPARTMENT OF FISH AND GAME Eastern Sierra - Inland Deserts Region 4775 Bird Farm Road Chino Hills, California 91709 (909) 597-5043



March 5, 2001

Mary Zambon, Project Planner Riverside County Transportation Department 4080 Lemon Street, 8th Floor Riverside, CA 92502

Re: Notice of Preparation (NOP) of a Draft Environmental Impact Report for the Bautista Canyon Road Project – SCH # 2001011110

Dear Ms. Zambon:

The Department of Fish and Game (Department) appreciates this opportunity to comment on the above-referenced project with regards to impacts to biological resources. The proposed project is the improvement of California Forest Highway 224, Bautista Canyon Road. The project consists of paving an 8.2-mile segment of Bautista Canyon Road which currently is an unimproved, dirt road. The road provides access between Hemet and Anza. The main need for this project is to provide the Anza area with specific measures to improve fire protection, law enforcement, and medical response times in the event of an emergency. The portion that is proposed for improvement begins 10.3 miles southeast of Valle Vista and extends 8.2 miles to a point 3.2 miles northwest of State Highway 371, west of Anza.

The Department is responding as a Trustee Agency for fish and wildlife resources (Fish and Game Code section 711.7 and 1802 and CEQA Guidelines section 15386) and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines section 15381).

Based on the information provided to the Department, the project may require an incidental take permit from the Department, as well as notification to the Department for a Streambed Alteration Agreement, pursuant to 1600 et seq. of the Fish and Game Code. If the issuance of a permit and/or Agreement is required, the Department has specific duties as a Responsible Agency in the CEQA process (Section 15096, CEQA Guidelines).

The proposed project has the potential to affect many sensitive plant and wildlife species as well as sensitive natural communities. A review of records from the California Natural Diversity Database and other available biological information indicates that many sensitive species and sensitive habitat types occur in the project vicinity and potentially could occur on site or adjacent to the site. These include: Quino checkerspot butterfly (Euphydryas editha quino), foothill yellow-legged frog (Rana boylii), red-legged frog (Rana aurora aurora), arroyo toad (Bufo microscaphus californicus), mountain yellow-legged frog (Rana muscosa), red diamond rattlesnake (Crotalus ruber ruber), black swift (Cypseloides niger), least Bell's vireo (Vireo bellii pusillus), tricolored blackbird (Agelaius tricolor), southwestern willow flycatcher (Empidonax trailii extimus), burrowing owl (Athene cunicularia), bank swallow (Riparia riparia), California horned lark (Eremophila alpestris actia), coastal California gnatcatcher (Polioptila californica californica), rufous-crowned sparrow (Aimophila ruficeps canescens), white-tailed kite (Elanus leucurus), Stephens' kangaroo rat (Dipodomys stephensi), San Diego horned lizard (Phrynosoma coronatum

Page 2 NOP DEIR - Villages of Old Town Specific Plan SCH# 2001011126

blainvillei), San Diego black-tailed jackrabbit (Lepus californicus bennettii), northwestern San Diego pocket mouse (Chaetodipus fallax fallax), mountain lion (Felis concolor), orange-throated whiptail (Cnemidophorus hyperthrus), rosy boa (Lichanura trivirgata), two-striped garter snake (Thamnophis hammondii), slender-horned spineflower (Dodecahema leptoceras), southern skullcap (Scutellaria bolanderi austromontana), Payson's jewel-flower (Caulanthus simulans), Nevin's barberry (Berberis nevinii), thread-leaved brodiaea (Brodiaea filifoila), Riversidean Sage Scrub and Willow Scrub.

Because this particular project has the potential to have significant environmental impacts on sensitive species and habitats, including State and Federally listed endangered species, critical aspects of the DEIR should include an alternatives analysis which focuses on environmental resources and specific mitigation measures for impacts identified as significant, including avoidance, minimization (including, but not limited to a reduced scope alternative), and in-kind compensation. To enable Department staff to adequately review and comment on the proposed project, we recommend the following information be included in the Draft Environmental Impact Report (DEIR):

- A complete assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, and locally unique species and sensitive habitats.
 - a. A thorough assessment of rare plants and rare natural communities, following the Department's May 1984 Guidelines (revised August 1997) for Assessing Impacts to Rare Plants and Rare Natural Communities (Attachment 1).
 - b. A complete assessment of sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service.
 - c. Rare, threatened, and endangered species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines, § 15380).
 - d. The Department's California Natural Diversity Data Base in Sacramento should be contacted at (916) 324-3812 to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code.
- 2. A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts.
 - a. CEQA Guidelines, § 15125(a), direct that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.
 - b. Project impacts should be analyzed relative to their effects on off-site habitats. Specifically, this should include nearby public lands, open space, adjacent natural

habitats, and riparian ecosystems. Impacts to and maintenance of wildlife corridor/movement areas, including access to undisturbed habitat in adjacent areas, should be fully evaluated and provided.

- c. The zoning of areas for development projects or other uses that are nearby or adjacent to natural areas may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the environmental document.
- d. A cumulative effects analysis should be developed as described under CEQA Guidelines, § 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.
 - e. If applicable, the document should include an analysis of the effect that the project may have on completion and implementation of regional and/or subregional conservation programs. Under § 2800-§ 2840 of the Fish and Game Code, the Department, through the Natural Communities Conservation Planning (NCCP) program, is coordinating with local jurisdictions, landowners, and the Federal Government to preserve local and regional biological diversity. Coastal sage scrub is the first natural community to be planned for under the NCCP program. The Department recommends that the lead agency ensure that the development of this and other proposed projects do not preclude long-term preserve planning options and that projects conform with other requirements of the NCCP program. Jurisdictions participating in the NCCP program should assess specific projects for consistency with the NCCP Conservation Guidelines.
- 3. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated. A range of alternatives which avoid or otherwise minimize impacts to sensitive biological resources should be included. Specific alternative locations should also be evaluated in areas with lower resource sensitivity where appropriate.
 - a. Mitigation measures for project impacts to sensitive plants, animals, and habitats should emphasize evaluation and selection of alternatives which avoid or otherwise minimize project impacts. Off-site compensation for unavoidable impacts through acquisition and protection of high-quality habitat elsewhere should be addressed. Mitigation measures should not be deferred to other regulatory agencies. Avoidance, minimization, or compensation should be included within the EIR to reduce the impacts to a level below significance.
 - b. The Department considers Rare Natural Communities as threatened habitats having both regional and local significance. Thus, these communities should be fully avoided and otherwise protected from project-related impacts (Attachment 2).
 - c. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Department studies have shown that these efforts are experimental in nature and largely unsuccessful.

Page 4 NOP DEIR - Villages of Old Town Specific Plan SCH# 2001011126

- 4. A California Endangered Species Act (CESA) Permit must be obtained, if the project has the potential to result in "take" of species of plants or animals listed under CESA, either during construction or over the life of the project. CESA Permits are issued to conserve, protect, enhance, and restore State-listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that the Department issue a separate CEQA document for the issuance of a 2081 permit unless the project's CEQA document addresses all project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a 2081 permit. For these reasons, the following information is requested:
 - a. Biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA Permit.
 - b. A Department-approved Mitigation Agreement and Mitigation Plan are required for plants listed as rare under the Native Plant Protection Act.
- 5. The Department opposes the elimination or alteration of watercourses, whether intermittent or perennial, and their associated riparian/wetland habitat. Alterations include, but are not limited to: conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether intermittent or perennial, should be retained and provided with substantial setbacks which preserve the riparian and aquatic values and maintain their value to on-site and off-site wildlife populations.
 - Under Section 1600 et seq of the Fish and Game Code, the Department requires the a. project applicant to notify the Department of any activity that will divert, obstruct or change the natural flow or the bed, channel, or bank (which may include associated riparian resources) of a river, stream or lake, or use material from a streambed prior to the applicant's commencement of the activity. Streams include, but are not limited to, intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams, and watercourses with subsurface flow. The Department's issuance of a Streambed Alteration Agreement for a project that is subject to CEQA will require CEQA compliance actions by the Department as a responsible agency. The Department, as a responsible agency under CEQA, may consider the local jurisdiction's (lead agency) Negative Declaration or EIR for the project. However, if the EIR does not fully identify potential impacts to lakes, streams, and associated resources (including, but not limited to, riparian and alluvial fan sage scrub habitat) and provide adequate avoidance, mitigation, monitoring and reporting commitments, additional CEQA documentation will be required prior to execution (signing) of the Streambed Alteration Agreement. In order to avoid delays or repetition of the CEQA process, potential impacts to a lake or stream, as well as avoidance and mitigation measures need to be discussed within this CEQA document. The Department recommends the following measures to avoid subsequent CEQA documentation and project delays:
 - 1) Incorporate all information regarding impacts to lakes, streams and associated habitat within the DEIR. Information that needs to be included within this document includes: (a) a delineation of lakes, streams, and associated habitat that will be directly or indirectly impacted by the proposed project; (b) details on

the biological resources (flora and fauna) associated with the lakes and/or streams; (c) identification of the presence or absence of sensitive plants, animals, or natural communities; (d) a discussion of environmental alternatives; (e) a discussion of avoidance measures to reduce project impacts; and (f) a discussion of potential mitigation measures required to reduce the project impacts to a level of insignificance. The applicant and lead agency should keep in mind that the State also has a policy of no net loss of wetlands.

- 2) The Department recommends that the project applicant and/or lead agency consult with the Department to discuss potential project impacts and avoidance and mitigation measures. Early consultation with the Department is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. Pre-project meetings are held every Monday at the Department's Chino Hills office. To schedule a pre-project meeting or to obtain a Streambed Alteration Agreement Notification package, please call (562) 590-5880.
- b. A discussion of potential adverse impacts from any increased runoff, sedimentation, soil erosion, and/or urban pollutants on streams and watercourses on or near the project site, with mitigation measures proposed to alleviate such impacts must be included.

Thank you for this opportunity to comment. Please contact me at (949) 458-1754 if you have any questions regarding this letter and/or need to coordinate further on these issues.

Sincerely,

Leslie S. MacNair Acting Supervisor

Habitat Conservation - West

Reshed. MacMain

Jeff Newman, USFWS, Carlsbad

CC:

From:

Wills, Mark

To:

Smith. Zully 2/27/01 10:47AM

Date: Subject:

New Construction Permit for Lake Elsinore & San Jacinto Watersheds

Zully,

Your recent letter to Mary Zambon made me realize I haven't properly updated you on the Santa Ana Regional Board's most recent permit action - Order No. 01-34.

On January 18, the SARWQCB adopted a new Regional General Permit (Order No. 01-34) for construction activities > 5 Ac. for projects that are within either the Lake Elsinore or San Jacinto Watersheds, i.e. projects which drain to Canyon Lake or Lake Elsinore.

This new Permit supercedes the existing State-wide Construction Activities General Permit. It will be administered locally by the SARWQCB (NOI and filing fee goes to SARWQCB; not SWRCB). Under the new Permit, SARWQCB staff must review and approve the applicant's SWPPP prior to initiating ground disturbance. The SWPPP must address Best Management Practices to be implemented both during the active construction phase and during the post-construction phase. Some form of stormwater monitoring program will also be required in most cases.

Additional info and permit available at http://www.swrcb.ca.gov/~rwqcb8/pdf/01-34.pdf.

Also, fyi, the SRWCB is in the process of amending the Statewide Construction General Permit to include stormwater monitoring under specified circumstances (direct discharge to 303(d) listed water bodies).

Sorry about the delay. Call me if you need any more info.

Mark

CC: Rawson. Michael, Couwenberg. Coen, Zambon. Mary, Johnson. John, Stump. Steve, Johnson. Clyde, Mooman. Shaheen, Sheppeard. Randy, Dawson. Brett



United States Department of the Interior

FISH AND WILDLIFE SERVICE 911 NE 11th Avenue Portland Oregon 97232-4181

February 22, 2001

RL

Mr. Rick Cushing, Engineer Federal Highway Administration 555 Zang Street, Room 259 Lakewood, Colorado 80228

Subject:

Review of ER-01/0044 NOI for Improvements to California Forest

Highway 224, Bautista Canyon Road, from Valle Vista to SH-371 west of Anza

Dear Sir:

In response to your <u>January 12, 2001</u>, Notice, the U.S. Fish and Wildlife Service offers no comment on the subject document. Please refer any comments to Julie Concannon, Regional Environmental Specialist at (503) 231-6154.

Sincerely,

Regional Director



1995 MARKET STREET RIVERSIDE, CA 92501 909.955.1200 909.788.9965 FAX

671861

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT February 16, 2001

Ms. Mary Zambon
Senior Transportation Planner
County of Riverside Transportation Department
4080 Lemon St., 8th Floor
Riverside, CA 92502

Dear Ms. Zambon:

Re: Bautista Canyon Road Project

This letter is written in response to the Notice of Preparation of a Draft Environmental Impact Report/Statement for the improvement to California Forest Highway (FH) 224, Bautista Canyon Road. The portion that is proposed for improvement begins 10.3 miles southeast of Valle Vista and extends southeast 8.2 miles to a point 3.2 miles northwest of State Highway 371, west of Anza.

The following issues should be addressed in the Initial Study:

- 1. Construction projects that result in the disturbance of 5 or more acres of land (or less than 5 acres if part of an overall plan of common development) may require coverage under the State Water Resources Control Board's (SWRCB) NPDES General Permit for Stormwater Discharges Associated with Construction Activity (Construction Activity General Permit). Copies of the Construction Activity General Permit and Fact Sheet may be obtained from the SWRCB website (www.swrcba.ca.gov).
- 2. The SAR-DAMP has been prepared to meet the requirements of the National Pollutant Discharge Elimination System (NPDES) Stormwater Permit issued by the Santa Ana Regional Water Quality Control Board to the municipalities in the Santa Ana River basin of Riverside County.

The District and the NPDES Co-Permittees also prepared Supplement "A" entitled "New Development Guidelines" and the attachment to Supplement "A", entitled "Selection and Design of Stormwater Quality Control". These documents complement the DAMP by providing additional guidance in the selection and implementation of best management practices. The above mentioned documents should be used during the evaluation of potential stormwater quality impacts and appropriate mitigation measures that may be needed to address such impacts. Enclosed are the copies of these documents. Any questions regarding the above mentioned documents or the District's NPDES program should be directed to Mark Wills of the District's NPDES Section at 909.955.1273.

Thank you for the opportunity to review the Notice of Preparation of a Draft Environmental Impact Report/Statement. Please forward any future environmental documents regarding the project to my attention at this office. Any further questions concerning this letter may be referred to me at 909.955.1233 or Brett Dawson at 909.955.4643.

ZULLY SMITH
Senior Civil Engineer

Enclosures

c: Bob Cullen Mark Wills

BD:slj



Central Federal Lands Highway Division 555 Zang Street, Room 259 Lakewood, CO 80228

FEB 1 4 2001

In Reply Refer To: HPD-16.5

Mr. Rick Hoffman County of Riverside Transportation Department 4080 Lemon St, 8th floor Riverside, CA 92501

Dear Mr. Hoffman:

The Federal Highway Administration (FHWA), Central Federal Lands Highway Division, in cooperation with the US Department of Agriculture Forest Service (USDA-FS), the California Department of Transportation (CALTRANS), and Riverside County, is proposing to improve a portion of California Forest Highway (FH) 224, Bautista Canyon Road.

FH 224 is a 21.7-mile route in Riverside County between State Highway (SH) 74, at the town of Valle Vista, and SH 371, about 1.5 miles west of the community of Anza (see attached map). The road traverses through the San Bernardino National Forest (SBNF). Bautista Canyon Road provides access to over 40,000 acres of National Forest, Indian Reservation, State, private lands and various forest multiple use functions. It links the communities of Hemet and Anza to the southern portion of the SBNF. The project proposes to pave an 8.2-mile segment of this roadway, which is currently an unpaved dirt road.

The 8.2-mile segment of the route was recommended for reconnaissance and scoping during the November 9, 1993, California Public Lands Highways (PLH) program meeting. The Reconnaissance and Scoping Report for FH 224 was prepared in 1994 as a guide for PLH agencies, which includes the USDA-FS, CALTRANS, and the FHWA. These three agencies are responsible for administering the Public Lands Highway (PLH) program and are collectively referred to as the "Tri-Agencies." Following development of the Reconnaissance and Scoping Report for FH 224, the project was identified for funding and is currently in the project development phase.

To guide this project through the environmental process, a Social, Economic, and Environmental (SEE) Study Team consisting of representatives from the FHWA, USDA-FS, CALTRANS and Riverside County was formed in December 2000. The initial SEE Team meeting was held on December 13, 2000. Public meetings regarding the proposed project were held on January 30 and 31, 2001 in Anza and Valle Vista, respectively.

The FHWA, as the lead agency, will prepare an Environmental Impact Statement (EIS) for 21-28.2-mile proposed highway project, following the Council on Environmental Quality's (CF

"Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA)" of November 29, 1978, 40 CFR Parts 1500 through 1508. In accordance with CEQ REG 1501.6, the FHWA is requesting that your agency become a cooperating agency in the development of this project.

The views of cooperating agencies will be sought through all stages of the development of the EIS. This coordination is intended to preclude any subsequent and duplicative review by cooperating agencies. This coordination will also aid in identifying all reasonable alternatives; any social, economic, and environmental impacts; and measures to minimize adverse impacts which may result from this highway improvement.

Enclosed is a copy of FHWA's "Guidance on Cooperating Agencies" which outlines the responsibilities of FHWA and of cooperating agencies. More specific responsibilities related to this project may have to be worked out during the project's scoping process.

We are requesting cooperating agency status from the following agencies: the US Forest Service, the US Fish and Wildlife Service, the US Army Corps of Engineers, the US Environmental Protection Agency, the Santa Ana Regional Water Control Board, the California Department of Transportation and Riverside County.

We look forward to your response to this request and your role as a cooperating agency on this project. If you have questions or need additional information, please contact Mr. Michael Vanderhoof, Environmental Protection Specialist, at 303-716-2141.

Sincerely yours,

/5/

James W. Keeley, P.E.
Project Development Engineer

Enclosure

Identical letters sent to:

Mr. Mike Florey
United States Forest Service
1824 Commercecenter Circle
San Bernardino, CA 92408

Ms. Kelly Schmoker Environmental Specialist Santa Ana Regional Water Quality Control Board 3737 Main Street, Suite 500 Riverside, CA 92501-3348

Ms. Karin Cleary-Rose US DOI Fish and Wildlife Service 2730 Loker Ave West Carlsbad, CA 92008 Ms. Susan Sturges
Regulatory Project Manager, Los Angeles District
U.S. Army Corps of Engineers,
911 Wilshire Boulevard
Los Angeles, CA 90017-3401

Ms. Elizabeth Varnhagen
US EPA - Region 9
Federal Activities Center, Mail Code: CMD-2
75 Hawthorne St.
San Francisco, CA 94105-3901

bc w/out enclosure
HPD-16.5 Central files CA FH 224
MVANDERHOOF:la:02/13/01

DEPARTMENT OF FORESTRY AND FIRE PROTECTION Riverside Unit Bautista Conservation Camp 33015 Bautista Road, Hemet Ca 92545 (909) 927-3639



Mary Zambon Senior Transportation Planner 4080 Lemon Street, 8th Floor Riverside, CA 92502-1090 February 13, 2001

Subject: Notice of Preparation, Bautista Canyon Road

Dear Mary,

On behalf of the California Department of Forestry and Fire Protection and Riverside County Fire Department, I would like to thank you for giving us the opportunity to have input on this proposed project. My response will reflect my joint areas of responsibility as the Division Chief in charge of Bautista Conservation Camp and as the Division Chief responsible for the San Jacinto Valley and Mountain Battalions of CDF/Riverside County Fire Department.

Issues, concerns, opportunities as it relates to Bautista Camp

The following is a joint response prepared with my counterpart in the California Department of Corrections, Lieutenant Rod Miller.

In terms of opportunities, paving the road up to Anza will greatly enhance the ability of our fire crews to travel to Anza and the surrounding area more quickly with less wear and tear on our vehicles. This includes emergency responses and routine trips to non-emergency projects.

In terms of concerns, we realize that paving the road will likely increase the amount of traffic traveling up and down the road. This will require our drivers to be all the more cautious, especially when they are driving Crew Carrying Vehicles either up or down the canyon. Since the camp is not fenced, there is perhaps increased potential for contraband drop-offs or other unapproved public contact.

One issue that we would like to be considered is the approach to the driveway leading into Bautista Camp from Bautista Canyon Road. We would request that you consider putting some kind of signage indicating the intersection ahead with slow moving vehicles entering the roadway. In addition, a left-turn lane into Bautista's driveway for downhill traffic coming into the camp would probably be a good idea. We would like to see centerline striping to help keep drivers on their side of the road if the road design allows that. Eventually we would like to see the entire road striped all the way to Fairview.

There are two other items of note that may not be affected either way by the paving of the road, but are important related issues. Some of the rocky cliffs along the roadway below Bautista Camp readily cast both small and large rocks onto the roadway after nearly every rainstorm. The other item is the detestable amount of illegal dumping happening along Bautista Canyon Road, both in and out of the USFS boundary.

Issues, concerns, opportunities as it relates to CDF/County Fire

Paving Bautista road up to Anza will allow fire department apparatus to move more quickly and with less wear and tear between Anza and Val Vista. During major fires in the area, fire equipment from all agencies will benefit from the upgrade in road quality.

Currently Val Vista Engine #72 serves the lower half of Bautista Canyon Road. Units out of Anza Station #29 service the upper half. Paving the road should cut down on the response times to traffic collisions within the canyon. However, increased traffic may also result in more accidents to respond to.

Please feel free to contact me if you have any questions. Thank you again for the opportunity to have input.

Respectfully,

Tom Tisdale, Chief, CDF Riverside Unit Riverside County Fire Department

By: Kevin Turner

Bautista Division Chief

Lt. Rodney Miller Camp Commander

Calif. Dept. of Corrections

SOUTHERN CALIFORNIA



ASSOCIATION of GOVERNMENTS

Main Office

12th Floor
Los Angeles, California

t (213) 236-1800 f (213) 236-1825

www.scag.ca.gov

Officers: - President: Councilmember Ron Bates, City of Los Alamitos - Second Vice President: Councilmember Hal Bernson, Los Angeles -Inmediate Past President: Supervisor Zev Yarnslavsky, Los Angeles County

Imperial County: Tom Veysey, Imperial County : David Dhillon, El Centro

Los Angeles County: Yvonne Brathwaite Burke, Los Angeles County . Zev Yaroslavsky, Los Angeles County . Elleen Ansari, Diamond Bar . Bob Bartlett. Montovia - Bruce Bartows, Certitos -George Bass, Bell - Hal Bernson, Los Angeles -Chris Christiansen, Covina · Robert Bruesch, Rosemead · Laura Chick, Los Angeles · Gene Daniels, Paramount . Jo Anne Darcy, Santa Clarka . John Ferraro, Los Angeles . Michael Feuer, 1 Angeles • Ruth Galanter, Los Angeles • Jackle Goldberg, Los Angeles • Ray Grabinski, Long Beach • Dee Hardison, Torrance • Mike Hermandez, Los Angeles . Nate Holden, Los Angeles . Lawrence Kirkley, Inglewood - Keith McCarthy, Downey -Cindy Miscikowski, Los Angeles - Stacey Murphy Burbank . Part O'Connor, Santa Monica . Nick Pacheco, Los Angeles • Alex Padilla, Los Angeles • Beatrice Proo. Pico Rivera . Mark Ridley-Th Los Angeles . Richard Riordan, Los Angeles . Karen Rosenthal, Claremont . Markine Shaw, Compton Rudy Svorinich. Los Angeles . Paul Talbot, Alhambra * Sidney Tyler, Jr., Pasadena * Joel Wachs. Los Angeles • Rita Walters, Los Angeles • Dennis Washburn, Calabasas • Rob Webb, Long Beach

Orange County: Charles Smith, Orange County: Ron Bates, Los Alamitos * Ralph Bauer, Humington Beach * Art Brown, Buena Park * Blizbeth Cowan, Costa Mesa * Cathryn DeYoung, Laguna Niguel * Richard Dixon, Lake Forest * Alta Duke, La Palma * Shifley McCracken, Anahelm * Dev Perry, Brea

Riverside County: Bob Buster, Riverside County • Ron Loveridge, Riverside • Greg Petils, Cathedral City • Andrea Puga, Corona • Ron Roberts, Temecula • Charles White, Moreno Valley

San Bernardino County: Bill Alexander, Rancho Cucamonga * Jim Bagley, Twentynine Palms * David Enheman, Fontana * Lee Ann Garcia, Grand Terrace * Gwenn Norton-Perry, Chino Hills * Judith Valles. San Bernardino

Ventura County: Judy Mikels, Ventura County *
Donna De Paola, San Buenaventura * Glen Becerra.
Simi Valley * Toni Young, Port Hueneme

Riverside County Transportation Commission: Robin Lowe, Hernet

Ventura County Transportation Commission: Bill Dayls, Simi Valley February 5, 2001

Ms. Mary Zambon Senior Transportation Planner County of Riverside Transportation Department 4080 Lemon Street, 8th Floor Riverside, CA 92502

RE:

Comments on the Notice of Preparation for a Draft Environmental Impact Report / Environmental Impact Statement for the Bautista Canyon Road Project - SCAG No. I 20010032

Dear Ms. Zambon:

Thank you for submitting the Notice of Preparation for a Draft Environmental Impact Report / Environmental Impact Statement for the Bautista Canyon Road Project to SCAG for review and comment. As areawide cleaninghouse for regionally significant projects, SCAG assists cities, counties and other agencies in reviewing projects and plans for consistency with regional plans.

In addition, The California Environmental Quality Act requires that EIRs discuss any inconsistencies between the proposed project and the applicable general plans and regional plans (Section 15125 [d]). If there are inconsistencies, an explanation and rationalization for such inconsistencies should be provided.

Policies of SCAG's Regional Comprehensive Plan and Guide and Regional Transportation Plan, which may be applicable to your project, are outlined in the attachment. We expect the Draft EIR/EIS to specifically cite the appropriate SCAG policies and address the manner in which the Project is consistent with applicable core policies or supportive of applicable ancillary policies. Please use our policy numbers to refer to them in your Draft EIR/EIS. Also, we would encourage you to use a side-by-side comparison of SCAG policies with a discussion of the consistency or support of the policy with the Proposed Project.

Please provide a minimum of 45 days for SCAG to review the Draft EIR/EIS when this document is available. If you have any questions regarding the attached comments, please contact me at (213) 236-1867. Thank you.

Sincerely,

ÆFFREYΨM. SMITH, AICP

Senior Planner

Intergovernmental Review

February 5, 2001 Ms. Mary Zambon Page 2

COMMENTS ON THE PROPOSAL TO DEVELOP A DRAFT ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL IMPACT STATEMENT FOR THE BAUTISTA CANYON ROAD PROJECT SCAG NO. I 20010032

PROJECT DESCRIPTION

The proposed Project considers road improvements to California Forest Highway (FH) 224, Bautista Canyon Road. The project consists of paving a 8.2-mile segment of Bautista Canyon Road, which is currently an unimproved, substandard dirt road.

CONSISTENCY WITH REGIONAL COMPREHENSIVE PLAN AND GUIDE POLICIES

The **Growth Management Chapter (GMC)** of the Regional Comprehensive Plan and Guide (RCPG) contains the following policies that are particularly applicable and should be addressed in the Draft EIR/EIS for the Project.

3.01 The population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.

Regional Growth Forecasts

The Draft EIR should reflect the most current SCAG forecasts which are the 1998 RTP (April 1998) Population, Household and Employment forecasts for the Western Riverside Council of Governments (WRCOG) subregion, unincorporated Riverside County, and the City of Hemet. These forecasts follow:

WRCOG Subregion

Forecasts	2000	2005	2010	2015	2020
Population	1,315,300	1,564,900	1,814,100	2,033,900	2,264,000
Households	424,600	504,800	585,000	647,800	730,900
Employment	366,700	464,800	563,200	644,900	740,300

Unincorporated West. Riverside County

County					
Forecasts	2000	2005	2010	2015	2020
Population	465,300	554,700	644,100	723,000	805,500
Households	155,200	184,700	214,300	237,400	288,000
Employment	94,600	132,700	170,800	202,400	236,900
City of Hemet					
Forecasts	2000	2005	2010	2015	2020
Population	60,500	75,600	90,800	104,100	118,000

 Polecasts
 2000
 2000
 2000
 2010
 2010
 2010
 2020

 Population
 60,500
 75,600
 90,800
 104,100
 118,000

 Households
 26,700
 33,600
 40,600
 46,000
 53,200

 Employment
 19,200
 25,200
 31,200
 36,200
 42,200

3.03 The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.

The Regional Transportation Plan (RTP) also has goals, objectives, policies and actions pertinent to this proposed project. This RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations. Among the relevant goals, objectives, policies and actions of the RTP are the following:

Core Regional Transportation Plan Policies

4.01 Transportation investments shall be based on SCAG's adopted Regional Performance Indicators.

<u>Mobility</u> - Transportation Systems should meet the public need for improved access, and for safe, comfortable, convenient and economical movements of people and goods.

- Average Work Trip Travel Time in Minutes 22 minutes
- PM Peak Highway Speed 33 mph
- Percent of PM Peak Travel in Delay (All Trips) 33%

Accessibility - Transportation Systems should ensure the ease with which opportunities are reached. Transportation and land use measures should be employed to ensure minimal time and cost.

Work Opportunities within 25 Minutes – 88%

<u>Environment</u> - Transportation Systems should sustain development and preservation of the existing system and the environment. (All Trips)

. Meeting Federal and State Standards - Meet Air Plan Emission Budgets

Reliability - Reasonable and dependable levels of service by mode. (All Trips)

- Transit 63%
- Highway 76%

<u>Safety</u> - Transportation Systems should provide minimal, risk, accident, death and injury. (All Trips)

- Fatalities Per Million Passenger Miles 0.008
- Injury Accidents 0.929

<u>Livable</u> Communities - Transportation Systems should facilitate Livable Communities in which all residents have access to all opportunities with minimal travel time. (All Trips)

- Vehicle Trip Reduction 1.5%
- Vehicle Miles Traveled Reduction 10.0%

<u>Equity</u> - The benefits of transportation investments should be equitably distributed among all ethnic, age and income groups. (All trips)

• Low-Income (Household Income \$12,000)) Share of Net Benefits – Equitable Distribution of Benefits

Cost-Effectiveness - Maximize return on transportation investment. (All Trips)

- Net Present Value Maximum Return on Transportation Investment
- Value of a Dollar Invested -- Maximum Return on Transportation Investment
- 4.02 Transportation investments shall mitigate environmental impacts to an acceptable level.
- 4.04 Transportation Control Measures shall be a priority.
- 4.16 Maintaining and operating the existing transportation system will be a priority over expanding capacity.

GMC POLICIES RELATED TO THE RCPG GOAL TO IMPROVE THE REGIONAL QUALITY OF LIFE

The Growth Management goals to attain mobility and clean air goals and to develop urban forms that enhance quality of life, that accommodate a diversity of life styles, that preserve open space and natural resources, and that are aesthetically pleasing and preserve the character of communities, enhance the regional strategic goal of maintaining the regional quality of life. The evaluation of the proposed project in relation to the following policies would be intended to provide direction for plan implementation, and does not allude to regional mandates:

- 3.18 Encourage planned development in locations least likely to cause environmental impact.
- 3.20 Support the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.
- 3.21 Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.
- 3.22 Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.
- 3.23 Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.

GMC POLICIES RELATED TO THE RCPG GOAL TO PROVIDE SOCIAL, POLITICAL, AND CULTURAL EQUITY

The Growth Management Goal to develop urban forms that avoid economic and social polarization promotes the regional strategic goal of minimizing social and geographic disparities and of reaching equity among all segments of society. The evaluation of the proposed project in relation to the policy stated below is intended guide direction for the accomplishment of this goal, and does not infer regional mandates and interference with local land use powers.

February 5, 2001 Ms. Mary Zambon Page 6

3.27 Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.

AIR QUALITY CHAPTER CORE ACTIONS

The Air Quality Chapter core actions related to the proposed project includes:

- 5.07 Determine specific programs and associated actions needed (e.g., indirect source rules, enhanced use of telecommunications, provision of community based shuttle services, provision of demand management based programs, or vehicle-milestraveled/emission fees) so that options to command and control regulations can be assessed.
- 5.11 Through the environmental document review process, ensure that plans at all levels of government (regional, air basin, county, subregional and local) consider air quality, land use, transportation and economic relationships to ensure consistency and minimize conflicts.

WATER QUALITY CHAPTER RECOMMENDATIONS AND POLICY OPTIONS

The Water Quality Chapter core recommendations and policy options relate to the two water quality goals: to restore and maintain the chemical, physical and biological integrity of the nation's water; and, to achieve and maintain water quality objectives that are necessary to protect all beneficial uses of all waters.

- 11.02 Encourage "watershed management" programs and strategies, recognizing the primary role of local governments in such efforts.
- 11.07 Encourage water reclamation throughout the region where it is cost-effective, feasible, and appropriate to reduce reliance on imported water and wastewater discharges. Current administrative impediments to increased use of wastewater should be addressed.

CONCLUSIONS

All feasible measures needed to mitigate any potentially negative regional impacts associated with the proposed project should be implemented and monitored, as required

February 5, 2001 Ms. Mary Zambon Page 7

by CEQA.

ENDNOTE

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Roles and Authorities

SCAG is a *Joint Powers Agency* established under California Government Code Section 6502 et seq. Under federal and state law, SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). SCAG's mandated roles and responsibilities include the following:

SCAG is designated by the federal government as the Region's *Metropolitan Planning Organization* and mandated to maintain a continuing, cooperative, and comprehensive transportation planning process resulting in a Regional Transportation Plan and a Regional Transportation Improvement Program pursuant to 23 U.S.C. '134(g)-(h), 49 U.S.C. '1607(f)-(g) et seq., 23 C.F.R. '450, and 49 C.F.R. '613. SCAG is also the designated *Regional Transportation Planning Agency*, and as such is responsible for both preparation of the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) under California Government Code Section 65080.

SCAG is responsible for developing the demographic projections and the integrated land use, housing, employment, and transportation programs, measures, and strategies portions of the *South Coast Air Quality Management Plan*, pursuant to California Health and Safety Code Section 40460(b)-(c). SCAG is also designated under 42 U.S.C. '7504(a) as a *Co-Lead Agency* for air quality planning for the Central Coast and Southeast Desert Air Basin District.

SCAG is responsible under the Federal Clean Air Act for determining *Conformity* of Projects, Plans and Programs to the Air Plan, pursuant to 42 U.S.C. '7506.

Pursuant to California Government Code Section 65089.2, SCAG is responsible for *reviewing all Congestion Management Plans (CMPs) for consistency with regional transportation plans* required by Section 65080 of the Government Code. SCAG must also evaluate the consistency and compatibility of such programs within the region.

SCAG is the authorized regional agency for *Inter-Governmental Review* of Programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12,372 (replacing A-95 Review).

SCAG reviews, pursuant to Public Resources Code Sections 21083 and 21087, *Environmental Impact Reports* of projects of regional significance for consistency with regional plans [California Environmental Quality Act Guidelines Sections 15206 and 15125(b)].

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364 SACRAMENTO, CA 95814 (916) 653-4082 (916) 657-5390 - Fax ,



February 1, 2001

Mary Zambon Riverside County Transportation Department 4080 Lemon Street, 8th Floor Riverside, CA 92502

SCH# 2001011110 - Bautista Canyon Road Project RE:

Dear Ms. Zambon:

The Native American Heritage Commission has reviewed the above mentioned NOP. To adequately assess the project-related impact on archaeological resources, the Commission recommends the following action be required:

- Contact the appropriate Information Center for a records search. The record search will determine:
 - Whether a part or all of the project area has been previously surveyed for cultural resources.
 - Whether any known cultural resources have already been recorded on or adjacent to the project area.
 - Whether the probability is low, moderate, or high that cultural resources are located within the project
 - Whether a survey is required to determine whether previously unrecorded cultural resources are present.
- If an archaeological inventory survey is required, the final stage of is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - Required the report containing site significance and mitigation be submitted immediately to the planning department.
 - Required site forms and final written report be submitted within 3 months after work has been completed to the Information Center.
- Contact the Native American Heritage Commission for:
 - A Sacred Lands File Check.
 - A list of appropriate Native American Contacts for consultation concerning the project site and assist in the mitigation measures.
- Provisions for accidental discovery of archeological resources:
 - Lack of surface evidence of archeological resources does not preclude the existence of archeological resources. Lead agencies should include provisions for accidentally discovered archeological resources during construction per California Environmental Quality Act (CEQA) §15064.5 (f).
- Provisions for discovery of Native American human remains
 - Health and Safety Code §7050.5, CEQA §15064.5 (e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery and should be included in all environmental documents.

If you have any questions, please contact me at (916) 653-4040.

Sincerely,

Rob Wood Associate Governmental Program Analyst

CC: State Clearinghouse



United States Department of the Interior

NATIONAL PARK SERVICE

Pacific West Region
Pacific Great Basin Support Office
600 Harrison Street, Suite 600
San Francisco, California 94107-1372

IN REPLY REFER TO:

D18(PGSO-PP)

January 30, 2001

Mary Zambon
Senior Transportation Planner
County of Riverside Transportation Department
4080 Lemon Street, 8th Floor
Riverside, California 92502

Dear Ms. Zambon:

Thank you for sending us of the Notice of Preparation of a Draft Environmental Impact Report (EIR)/ Environmental Impact Statement (EIS) for the Bautista Canyon Road Project (NOP). The National Park Service interest in the project relates to the Juan Bautista de Anza National Historic Trail.

After reviewing the primary environmental issues listed in attachment 1 of the NOP, we suggest that two other issues should be added: historic resources and recreational resources. Bautista Canyon is the historic route of the 1774 and 1775-1776 Anza expeditions and provides to this day a sense of the landscape encountered at the time. It is identified in the *Comprehensive Management and Use Plan/Environmental Impact Statement* for the Juan Bautista de Anza National Historic Trail as a "high potential" segment and a significant link in a recreational retracement trail, which would extend from Nogales, Arizona, to San Francisco, California. Since the road is on U.S. Forest Service land, it is automatically a component of the national trail. In 1999, the trail was designated a National Millennium Trail, a project of the U.S. Department of Transportation.

The existing dirt portion of the road slows and reduces automobile traffic, thereby contributing to the recreational experience. The EIR/EIS should describe the historic setting of the Canyon in relation to the Anza expeditions and evaluate the impacts of paving the road to the experience of the historic setting for the recreational user. If the impacts are significant, some sort of mitigation should be proposed such as an off-road shared use trail that would replace the current recreational experience.

Mary Zambon January 30, 2001 Page 2 of 2

Please continue to keep us informed of the status of the project. If you have any questions or concerns you can contact me by telephone at 415/427-1438, by mail at the letterhead address, or by e-mail at meredith_kaplan@nps.gov.

Sincerely,

Meredith Kaplan, Superintendent

Meredith Kaplan

Juan Bautista de Anza National Historic Trail

cc: Jeannie Gillen, Amigos de Anza

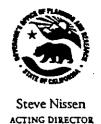
The National Park Service cares for special places saved by the American People so that all may experience our heritage.

EXPERIENCE YOUR AMERICA

Gray Davis GOVERNOR

STATE OF CALIFORNIA

Governor's Office of Planning and Research State Clearinghouse



Notice of Preparation

January 25, 2001

To:

Reviewing Agencies

Re:

. Bautista Canyon Road Project

SCH# 2001011110

Attached for your review and comment is the Notice of Preparation (NOP) for the Bautista Canyon Road Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Mary Zambon
Riverside County Transportation Department
4080 Lemon Street, 8th Floor
Riverside, CA 92502

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan

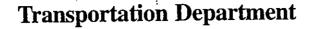
Project Analyst, State Clearinghouse

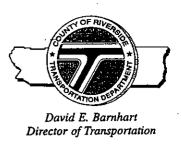
Attachments cc: Lead Agency



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY





NOTICE OF PREPARATION

TO: Robert Prohaska

AMEC Earth & Environmental

5510 Morehouse Drive

San Diego, Ca 92121

(858) 458-9044

FROM:

County of Riverside

Transportation Department 4080 Lemon St., 8th Floor

Riverside, CA 92502

OF R/1999 955-6759

Subject: Notice of Preparation of a Draft Environmental Impact
Report/Environmental Impact Statement

The County of Riverside.

Will be the Lead Agency and will prepare an environmental impact reputation that is relevant to your agency's statutory respectibilities in connection with the proposed project. Your agency will need to refer to the EIR repared by the Department when considering your permit or other approval for this project.

The Federal Highway Administration. AWAY, in cooperation with the San Bernardino National Forest, will be the lead agency to the preparation of an environmental inclusion and agency to the preparation of an environmental inclusion and agency to the preparation of an environmental inclusion and agency to the preparation of an environmental inclusion and agency to the preparation of an environmental inclusion and the preparation and the prepara

Letters describing the proposed action and soliciting comments will be sent to appropriate Federal, State, and local agencies, and to private organizations and citizens. Public scoping meetings will be held on:

January 30, 2001 at 7:00 p.m. Anza Community Center Anza, CA 92539

January 31, 2001 at 7:00 p.m.
Valley Wide Parks and Recreation Facility
43935 E. Acacia,
Hemet, CA 92544.

Robert Prohaska AMEC Earth & Environmental Page 2

A brief project description is contained in Attachment 1. A copy of the initial study has not been prepared because the lead agencies have determined that an EIR/EIS will be prepared for the project.

Due to the time constraints mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your responses to **Mary Zambon**, Senior Transportation Planner, (909) 955-6759, at the address shown above. Additionally, please provide a point of contact for your agency along with your responses.

Project Title: Bautista Canyon Road Project

Project Applicants: County of Riverside, Transportation Department

Date: January 22, 2001 Signature:

Edwin D. Studor, Administrative Manager

Attachments: Project Description, Project Area Map, Agency NOP Distribution List



Central Federal Lands Highway Division 555 Zang St, Rm 259 Lakewood, CO 80228

JAN 0 5 2001 In Reply Refer To: HPD-16

Office of the Federal Register National Archives and Records Administration 7th and Pennsylvania N.W. Washington, DC 20408

Dear Sir:

Enclosed please find three original signed copies of a Notice of Intent to prepare an Environmental Impact Statement. These are bring provided so that they may be published in the Federal Register at your earliest possible convenience.

If you have any questions or comments please contact Mr. Michael Vanderhoof at 303-716-2141.

Sincerely yours,

James W. Keeley, R. E.

Project Development Engineer

Enclosures (3 NOI)

cc: Mary Zambon, Senior Transportation Planner, County of Riverside Transportation
Department, 4080 Lemon Street, 8 th Floor, Riverside, CA 92501 (w/enclosure)
Mike Florey, Forest Engineer, San Bernardino National Forest, 1824 Commerce Center

Circle, San Bernardino, CA 92408 (w/enclosure)

Louis Flores, Caltrans, D8 Local Assistance Engineer, 464 W. Fourth Street, 6th Floor, MS 1030, San Bernardino, CA 92401-1400 (w/enclosure)

bc: Sam Holder, Project Manager

Michael Vanderhoof, Environmental Protection Specialist

yc: reading file

Central file: CA PFH 224, Bautista Canyon

MVANDERHOOF:jm:01/05/01:L\environm\wp\ca224\NOI cover.wpd





Central Federal Lands Highway Division 555 Zang Street Mail Room #259 Lakewood, CO 80228

OCT 16 2000

In Reply Refer To: HPA-16.3

Mr. David E. Barnhart Director of Transportation County of Riverside P.O. Box 1090 Riverside, CA 92502

Attn: C. Scott Staley

Dear Mr. Barnhart:

Enclosed are three copies of a proposed Forest Highway (FH) Agreement. We require a FH agreement before we start the development of a new project or route (i.e., FH-224, Bautista Canyon Road). The agreement formalizes the general requirements for the following:

- · Forest Highway Routes,
- · Project Selection,
- Project Agreements,
- Compliance with Federal-aid Procedures and the Direct Federal Nationwide Action Plan in, Project Development,
- Survey, Design, and Construction,
- Rights-of-Way and Rights-of Entry,
- Utility Relocation, and
- Maintenance.

The significance of the list in Enclosure 1 is that these are the routes in Riverside County eligible for FH and emergency relief-federally owned (ERFO) funding.

Please note, the <u>agreement will not be binding on any specific route until we expend federal</u> funds on the route.

If you agree with the provisions of the agreement, please have the appropriate official(s) sign and date each copy. We will then sign and return a fully executed copy for your files. If signing the agreement requires action by the Board of Supervisors, please include a copy of the resolution. If you have any questions, please call Mr. Larry Klockenteger at 303-716-2021.

Sincerely yours,

15/

W. Larry Klockenteger, P.E. Transportation Planning Engineer

Enclosures

c.c. w/agreement

Mr. Timothy Craggs
Design and Local Programs, MS 29
California Department of Transportation
1120 N Street
P.O. Box 942874
Sacramento, CA 94274-0001

Mr. Melroy Teigen Director of Engineering USDA Forest Service, Region 5 1323 Club Drive Vallejo, CA 94592

bc Sam Holder, HPD-16 w/ copy of agreement Craig Actis w/ copy of agreement

File: SP-03 (CA-Riverside County)

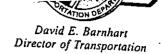
WLKLOCKENTEGER:wik:1/24/2000 ()



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY

Transportation Department



November 15, 1995

Mr. Larry C. Smith, P.E. Division Engineer Federal Highway Administration P.O. Box 25246 Denver, Co. 80225-0246

Re:

California Forest Highway (FH) 224, Bautista Canyon Road

HPD-16

Dear Mr. Smith:

This is in response to your recent request that we designate a member of our staff to participate in the SEE Study Team for the above referenced road improvement project. We are pleased to see that the Federal Highway Administration is planning to proceed with this project, and we will be glad to participate. We have designated Mr. Atef Zaki, Senior Civil Engineer, as our Project Manager. He should be your primary liaison with our department and can be reached at (909) 275-6787. However, if you should have questions or concerns specifically related to environmental issues, you may feel free to directly contact Mr. Ed Studor, Transportation Planning Manager, at (909) 275-6767. Both of these gentlemen can be reached at our Post Office Box as

Thank you for inviting our participation. We look forward to working with you.

Sincerely

Director of Transportation

ES/es

cc:

Tek Tanaka

Ed Studor

Atef Zaki

From: Anne Brunick
To: BBIRD, DGEDEON

Date: Thursday, November 9, 1995 9:37 am

Subject: Bautista Canyon

I sent out a letter (dated Oct. 27) to the Forest Service, Riverside County, and the State, asking for SEE team members. Bob Munsell has asked that we do nothing more on this project until we hear from him, probably after the program meeting in January. The Forest Service has asked the County to take responsibility for the NEPA compliance. The FS feels that this project is of great benefet to the County and that they should have some financial commitment. The County has not agreed to any commitments so far; and nothing more should be done to further the project until some agreement has been reached.

CC: BMUNSELL



COUNTY OF RIVERS

TRANSPORTATION AND LAND MANAGEMENT AGENCY



Director of Transpo

October 31, 1995

Transportation Department

Mr. Mike Florey Forest Engineer United States Department of Agriculture San Bernardino National Forest 1824 S. Commercenter Circle San Bernardino, CA 92408

OPTIONAL FORM	99 (7-90)		 -	
FAX				# of pages >-
- <u>- </u>	مجعه	tegec	R	Have
Elec	11-		Phone 5	70025
<u> </u>	69-6	499	Pat 6	000
ON 7840-01-317-1	364	5099-101	ÛENE	PAL BERVICES ADMINI

Re: Bautista Road - 7740

Dear Mr. Florey:

Reference is made to your letter dated September 25, 1995 requesting our commitment to fund and complete the environmental assessment and acquire the needed rightsof-way for the Bautista Road improvement project.

We have many other higher priorities for the nominal amount of funds presently available for road improvements in Riverside County.

Since we do not have resources for the project, the preparation of the environmental document will have to be performed by FHWA staff, funded by ISTEA. Our staff can be made available to perform this work if State or Federal . funding is provided ...

The only feasible means of perfecting the right-of-way would be if the underlying property owners walved their rights of just compensation.

Otherwise, I am afraid that the only recourse as to withdraw the project from the

Sincerely,

David E. Barnhart

Director of Transportation

TT:gh

cc: Kay Ceniceros

Ed Studor

George Johnson

OCT 2 7 1995
In Reply Refer To:
HPD-16

Mr. Melroy Teigen
Director of Engineering
Forest Service, Region 5
Pleasant Hill Engineering Center
2245 Morello Ave.
Pleasant Hill, CA 94523-1897

Dear Mr. Teigen:

Subject: California Forest Highway (FH) 224, Bautista Canyon Road

The Forest Highway Program Agencies have agreed that this office will proceed with preliminary engineering studies (environmental, geotechnical, and design) on the above project. The Bautista Canyon Road is a 21.7-mile route in Riverside County between State Highway (SH) 74, at the town of Valle Vista, and SH 371, about 1.5 miles west of the community of Anza. The 8.2-mile portion to be improved extends from a point 10.3 miles southeast of SH 24 and Valle Vista to a point 3.2 miles northwest of SH 371.

In considering the design of this proposal and its environmental impacts, we will follow the procedures included in the <u>Nationwide Action Plan</u> and the <u>Project Development and Design Manual</u> written for Federal Lands Highways projects. The procedures call for establishing a Social, Economic, and Environmental (SEE) Study Team to guide the project through its development stages.

Ms. Anne Brunick, Environmental Protection Specialist, and Mr. Dave Gedeon, Design Project Manager, have been appointed as the Central Federal Lands Highway Division members and cochairpersons of the SEE Study Team. Ms. Brunick will coordinate the SEE aspects of the proposal, and Mr. Gedeon will coordinate the engineering activities.

We ask that you designate a member to the SEE Study Team who has authority to call on available disciplines within your agency that are needed during project development. If you have any questions or require additional information, please contact Ms. Anne Brunick at 303-969-5912.

Sincerely yours,

Larry C. Smith, P.E. Division Engineer



Memorandum

Federal Highway Administration

Subject: **INFORMATION:** Reconnaissance and Scoping Report

Date: April 18, 1994

California Forest Highway 224

Bautista Canyon Road

Reply to

Attn. of:

HPC-16

From:

Project Scoping Engineer

Denver, Colorado

To: See Addressees Below

Attached is the final report for the subject project.

Robert M. Monall

Robert N. Munsell

Attachment

Addressees:

William R. Bird (3 copies) Rich Coco Charmaine Farrar Dave Gedeon (2 copies) Ron Hall Larry D. Henry Charles R. Houser James W. Keeley W. Larry Klockenteger Ted Nguyen James D. Roller Bob H. Welch

Appendix E Traffic Volume Analysis



41 Corporate Park

Suite 210

Irvine, CA 92606

p: 949.660.1994

f: 949.660.1911

TRANSPORTATION PLANNING

TRAVEL DEMAND MODELING

DATABASE DEVELOPMENT

GIS

TRAFFIC ENGINEERING

ACOUSTICAL STUDIES

PARKING STUDIES

TRAFFIC IMPACT STUDIES

arieton Waters, P.E.

Bill Lawson, AICP

Scott Sato, P.E.

John Kain, AICP.

April 11, 2002

Mr. Juan Perez RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT 4080 Lemon Street, 8th Floor Riverside, CA 92502

Subject: Bautista Road Traffic Volume Analysis

Dear Mr. Perez:

The purpose of this letter is to provide traffic projections for the Year 2025 along Bautista Road between State Route 74 and State Route 371. Urban Crossroads, Inc. has reviewed available traffic counts and travel time survey data prepared for the County of Riverside. Our projections incorporate existing traffic volumes, potential traffic diversion, and growth trends in western Riverside County.

Bautista Road is a 21 mile route in Riverside County which extends from the community of Valle Vista near Hemet to the community of Anza at State Route 371. The County of Riverside proposes to pave an 8.12 mile segment of this roadway, which is currently an unpaved dirt road. The route is currently designated a rural collector. The 8.12 mile segment of the route includes mountainous terrain and crosses several drainages, including Bautista Creek.

Existing Traffic Volumes

Traffic counts conducted during February, 2001 indicate the range of daily travel activity served by Bautista Canyon Road at 3 locations. The count at the northerly location was conducted

Mr. Juan Perez RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT

April 11, 2002

Page 2

east of Fairview Avenue. The central count location was conducted north of the prison

facility, which takes access to Bautista Road. The southerly count location is south of

Tripp Flats Road. The traffic count worksheets are provided in Attachment 1.

Existing Traffic Volumes at the northerly count location range from 222 vehicles per day

on a Saturday to 346 vehicles per day on a Wednesday. The Wednesday daily traffic

volumes of 346 vehicles has been selected as a representative count for average

weekday conditions.

Existing daily traffic volumes at the central count location range from 88 vehicles on a

Saturday to 138 vehicles on a Thursday. In order to represent a conservatively high

mid-week scenario, the volume of 138 vehicles per day was selected as the baseline

traffic volume at this location.

The lowest amount of traffic was measured at the southern count location along

Bautista Road. The daily traffic counts south of Tripp Flats Road range from 29

vehicles on a Friday to 61 vehicles on a Monday. The existing weekday baseline

volume was set at 61 vehicles per day for the purposes of this analysis.

Potential Traffic Diversion

Bautista Road serves as a linkage between the community of Anza and the City of

Hemet. Travel distances and travel times have been determined for alternate routes

from downtown Hemet to the Community Center located in Anza (see Attachment 2).

The shortest distance between the center of these two communities is 27.04 miles

along a route which includes Bautista Road. However, with travel times reduced on the

8.12 mile dirt segment of Bautista Road, the travel time along this route is approximately

49 minutes.

Mr. Juan Perez RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT April 11, 2002

Page 3

The next shortest route between Hemet and Anza is 36.57 miles along State Route 74

to State Route 371. This route is associated with the lowest current travel time of the

alternatives considered (47 minutes). However, this route also involves traveling

through the mountain communities of Garner Valley and Mountain Center.

Another alternative route from Hemet to Anza involves travel along State Street and

Sage Road for a total distance of 40,56 miles. This route has a greater travel time (56

minutes) than the Bautista Road route as well as the State Route 74 route through

Garner Valley and Mountain Center.

County staff has estimated that the paving of Bautista Road will increase the average

speed of the 8.12 mile segment to approximately 33 miles per hour on a paved section.

This will result in the Bautista Road linkage between Anza and Hemet as both the

shortest travel distance and shortest travel time (43 minutes) in comparison to other

roadway alternatives. However, the Bautista Road route will remain a rural collector

with moderate travel speeds and many curvilinear segments. It will not serve as a

thoroughfare route to destinations other than Anza or East Hemet/Valle Vista.

Review of traffic turning movements at the State Route 371/State Route 74 and State

Route 243/State Route 74 intersections (see Attachment 3) indicates that there is a

potential diversion of up to 450 vehicles per day from the SR-371/SR-74 Route to

Bautista Road. This represents approximately 15% of the State Route 371 volume of

3,000 vehicles per day east of Anza.

Growth Trends

In April, 2001 the Bureau of the Census started releasing 2000 census figures for

California (see Attachment 4). Based on these new numbers, Riverside County

. .

Mr. Juan Perez RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT April 11, 2002 Page 4

experienced a 32% increase in population between 1990 and 2000. This rate of growth is expected to continue for the next 25 years.

Within the unincorporated county area of Western Riverside, the 1997 population was estimated as 299,939 persons. The Southern California Associations of Governments (SCAG) 2001 Regional Transportation Plan (RTP) baseline projections for Western Riverside County indicate a 2025 population of 771,595 persons within the unincorporated county area. This represents a growth rate of approximately 225% over 2001 conditions.

2025 Traffic Volume Projections

Traffic projections at the 3 locations along Bautista Road have been determined by combining the existing baseline volumes with a traffic diversion volume of 450 vehicles, and increasing the "with diversion" value by a factor of 2.25 at each location. The northerly location east of Fairview Avenue is therefore projected to serve approximately 1,790 vehicles per day in 2025. The central location north of the prison facility is projected to serve a daily volume of 1,320 vehicles, and the southerly location (south of Tripp Flats Road) is estimated to serve 1,150 vehicles in 2025.

County staff members have also requested that an estimate be presented for night time trips (8 PM to 7 AM) at each location. Review of the February, 2001 Bautista Road traffic count data indicates that approximately 19% of the travel activity occurs between 8 PM and 7 AM. It is important to note that approximately 44% of this night time activity occurs between 6 AM and 7 AM. Based upon these factors, the northerly segment of Bautista Road is estimated to serve approximately 340 vehicles during the night time period, with approximately 150 of these vehicle trips occurring between 6 AM and 7 AM. The central segment of Bautista Road is projected to serve approximately 250 night time vehicle trips in 2025, with 110 of these trips occurring between 6 AM and 7 AM.

Mr. Juan Perez
RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT

April 11, 2002

Page 5

The southerly segment of Bautista Road is projected to serve approximately 220 night

time vehicle trips, with 95 of these trips occurring between 6 AM and 7 AM.

Opening Year Volume Projections

Upon completion of the proposed paving improvements on Bautista Road, Urban

Crossroads, Inc. staff members estimate that approximately 56% of the potential SR-

371/SR-74 diversion will utilize this improved route within the first year. The northerly

segment of Bautista Road is therefore estimated to serve 600 vehicles per day. The

central location is projected to serve 400 vehicles per day, and the southerly location

(south of Tripp Flats Road) is estimated to serve 300 vehicles per day.

Conclusions

For 2025 conditions, the Bautista Road daily traffic volumes are projected to increase to

levels that are between 1,100 and 1,800 vehicles per day depending upon location.

These 2025 traffic volume projections are well within the capacity of a 2-lane rural

collector. For Opening Year conditions, the Bautista Road daily traffic volumes are

projected to increase to levels that are between 300 and 600 vehicles per day. If you

have any questions regarding these projections, please do not hesitate to contact me at

(949) 660-1994.

Sincerely,

Urban Crossroads, Inc.

John Kain, AICP

Pr/ncipal

00587-02

JK:rd

Attachments

ATTACHMENT 1

BAUTISTA ROAD TRAFFIC COUNT DATA SHEETS COURT OF KIYAKSIUB BACTISTA ROAD/BAST OF FAIRVIEW AVENUE 7 DAY DIRECTIONAL CLASSIFICATION COUNT

Site Code : 523806 Start Date: 02/20/2001 File I.D. : CRBA30FA

Jagin	TANAR	Cars & 2					BAST	BOUND.	WESTBOUND					Pile I.D. : CR3;
3eç11 <u>7:7e</u>	Rikas	Tirs	Tong	Puche C	II.E	3 Axle	4 Axle	<5 Arle	5 Axle>6	Arlec	6 Arie	6 Axlex	6 Arie	
12:00 02/20	<u> </u>	<u> </u>	PORG	ouses b	116	2:0die	<u> </u>	<u>Double</u>	Double Do	րիլո	Multi	Multi	Multi	Total
61.00 02/20	, <i>0</i>	V	V	U	Ų	0	0	0	0	0	0	0		0
51:00 (Tues.) ,	Ü	Ü	U	C	0	0	0	0	0	0	0	0	ň
	Ų	0	0	0	0	0	0	0	0	٥	0	ň	ň	٨
03:00	0	0	Ĵ	0	0	0	0	0	3	Ō	ň	ň	ň	2
94:00	0	2	0	0	0	0	0	Ô	5	n	0	0	٨	7
05:00	0	4	2	Ō	2	ň	ň	ň	1	٥	U	V	v	
96:00	0	6	11	ň	ċ	٥	ň	0	1	U	Ü	Ų	Ü	12
07:00	Ô	ğ		Λ.	4	۷		U	4	0	0	0	0	27
08:00	,	ć	1	U	•	Ų	U	U	3	0	. 0	O	0	22 15
09:00	, ,	7	- 1	U	Ü	1	0	0	5	0	0	0	0	. 15
	v)	D	9	3	0	0	4	0	0	0	0	28
10:00	U	٤	4	0	5	2	0	0	5	0	0	٥	Ò	19
11:00	0	4	3	0	5	3	0	. 0	5	Ö	Ö	Ŏ	ŏ	20
12:00 pm	0	7.	5	0	1	I	. 0	1	4	ð	0	0	0	19
01:00	0	5	10	D	3	5	· O	0	2	D	٥	Ď	ň	25
02:00	0	6	7	0	4	3	0	1	Õ	Ŏ	ũ	ň	Ď	21
03:00	2	15	5	0	7	0	Ô	1	ă.	ň	ń	۸	ň	30
04:00	0	9	8	Ô	3	Ŏ	Ŏ	ñ	ň	ń	٨	4	V	
05:00	_0	14	5	Ŏ	ž	ŏ	ň	ň	ň	٨		v	Ü	20
06:00 .	0	5		- · - ŏ - · · · ·	-n-		. 0	0	٨	V A	U		<u>v</u>	. 22
07:00	0	2	ĩ	ñ	ň	ň		۷	v	Ų	V	Ų	0	8
08:00	Ô	i	ī	ň	1	0	٥	U	Ų	U	0	0	C	3
09:00	ā	ī	•	n	Ţ	V		U	U	Q	0	0	0	3
10:00	Ŏ	1	2	ν .	v		Ų	0	0	0	0	0	G	5 ·
11:00	ň	i	1.	ν	U	V	U	Ü	0	Ç	0	0	0	3
Day Totals	4	113	82	t t	53	18	*	3	44	0	. 0		. 0	<u> </u>
12:00 02/21	۸	٥	•			_								
A	۸ .		U	V	0	0	0	0	0	0.	0	0	0	0
01:00 W2d	v	V	Ü	Ç	0	0	0	G	0	0	0	Ð	Ò	Č
03:00	۷.	U .	2 4	0 0	0 .	G	0	0	1	0	Ô	Û	Ō	ī
04:00	U	7	1ን 'ነ	11 -	0,1	(0	G	0	4 :	0	Ò	Ŏ	ŏ	ξ
	0	2 / 1	5 1 7 C	4, 0	0 /	` , 0	0	0	314	.Ö	Ď	ň	ñ	Š
05:00	0	3.	0 9	0	i u i	71 0	0	0	3 0 .∖₁	៍0	ň	ñ	ň	7
06:00	0	4	9	0	8 fr.	C	0	Ö	ويستري فا	n	ň	٨	0	70
07:00	0	12	6		1	0_	0	Õ	5 12	ā	٨	V		29. 24. 16
08:00	0	2	5	0	3	0	0			*	- v	<u> </u>		. 49
09:00	0	5	7	0 1	2	5	ō	ň	Ė	0	V	0	V	
10:00	0	4	3	0 1		Š	Ö	Ŏ	3	V	Q •	0	Ō	34
1:00	0	2	4	o î	5	5 2	Õ	3	3 2	0	0 - 0	0	0	29 · 18
12:00 pm	1	5	4	0	3	3	0							
1:00	0	Š	10		}	,	Ŏ	1	2	0	0	0	0	19 33 27
2:00	1	13	-6	ň	?	3	•	0	4	Ū	1	0	0	33
3:00	ō	4	Š	0)	v	0	0	1	0	0	0	0	27
4:00	Ď	8	3	U .		1	0	2	4	0	0	G	0	19
5:00	Õ		•	0 1)	0	Q	0	Û	0	0	0	0	19 20
6:00	۸	15	4	0	1	1	0	0	2	0	0	Ö	Ŏ	26
7:00	0	8	1	0 ()	Û	0	0	0	0	0	ō	å	. 4
7.00 B:00	V	1	1	0 (Ç	0	1	0	0 .	ō	ō	ů	. 6
5:00 9:00	U	2	0	0 (. 0	0	0 -	0	0	Õ	ň	Ö	· - 1
7.UV 1.00	U	2	1	0 0		0	0	Ó	Ŏ	Ŏ	Ů	Û	0	4
3:00	0	4	3	0 1		0	0	Õ	Ď	ñ	۵	0		,
1:00	<u> </u>		1	<u> </u>		Ö	ō	ā	ň	o	0	U O	0	1 1
ay Totals	2	106	80	• 76		21	1	7	53	<u>-</u>		<u></u>	<u> </u>	<u>.</u>
				••				•		-	1	•	t	346

٠.,.

62/346

COUNTY OF RIVERSIDE BAUTISTA ROAD/BAST OF PAIRVIEW AVENUE 7 DAY DIRECTIONAL CLASSIFICATION COUNT

Site Code : 523806 Start Date: 02/20/2001 File I.D. : CRBAROPA

301

BASTBOUND, WESTBOUND 2 Axie 3 Axie 4 Axie<5 Axie 5 Axie>6 Axie<6 Axie 6 Axie>6 Axie> Page Besid Cars : 2 Arle Ţ. firs Long Buses 6 Tire Single Single Double Double Double Multi Multi Total 12:00 02/22 0 0 O 01:00 - Jun 0 0 Ô 0 Ô 0 0 Ô ٥ Õ O Ð 03:00 ٥ 0 ٥ 04:00 ٥ ٥ 05:00 Û G6:00 n 9 07:00 13 6 08:00 2 0 15 09:00 8 10:00 18 2 0 0 O 7 ũ 11:00 14 0 1 0 1 Λ 21 12:00 pm 7 0 0 01:00 13 0 27 02:00 4 20 03:00 0 10 O 24 04:00 0 18 ٥ 33 05:00 ٥ 15 06:00 07:00 08:00 09:00 Ô 10:00 0 2 0 Û 0 11:00 0 0 0 Day Totals 138 46 59 327 ŀ 12:00 02/23 0 0 0 O 0 0 01:00 0 Ô Ð û 02:00 Fri 0 0 ٥ 03:00 0 ۵ 04:00 0 05:00 06:00 07:00 6 0 08:00 20 5 09:00 20 A 5 ٥ 10:00 26 10 0 0 0 11:00 20 9 Ô 31 12:00 pm 1 01:00 16 02:00 29 63:00 18 04:00 16 8 05:00 11 16 36:00 17 6 07:00 1 08:00 0 09:00 0 10:00 0 0 ۵ Ô 1:00 Ð 0 ٥ 0 Jay Totals 0 103 70 52

2008.3 UNDIBLISD, INC. 909-247-6716

BASTBOUND, WESTBOUND

COUNTY OF RIVERSIDE
BASTISTA ROAD/BAST OF FAIRVIEW AVENUE
DAY DIRECTIONAL CLASSIFICATION COUNT

Site Code : 523806 Start Date: 02/20/2001 Pile I.D. : CRBAZOFA

							9491	<u>, unuv</u>	עהטטבו בבי					Page
Beçil		Cars & 3	l Arle		2 Arie	3 Arle	4 Axle	S Arle	5 Axle>6 Ax	lecf 1	ماح	6 Aries	6 lyle	
7.70	Rikes	Tirs	i one	Buche	Crira	Cincle	Cinala	Double	Double Doub	i A No	1	_ Multi	M. Is.	
			- 20119	36363	2 i.i.	<u> 3:49:5</u>	3:1015	DOUDIE	DORDIE DOG	11 11	151	50151	Multi	Total
12:00 02:24	0	1	0	· 0	0	0	Q	Q	0	0	0	0	0	1
91:90 Sat	Ω	;	0	n	n	n	Ð	n	n	٨	0	n	n	ĭ
)	^			ž		•	, ,	·		•	•			4
GD:00	V	U	U	U	U	V	Ū	U	Ų	Ü	Ū	Ð	0	0
03:00	0	0	0	Û	G	G	Û	Ô	Ì	٥	0	n	0	1
94:90	À	7	ò	ň	ň	ň	ň	Ň	Ţ	*	Ň	Č	Ă	•
74:30				V	V	v	Ų	V	1	Ų	U	u	Ų	3
05:00	0	0	1	0	0	0	0	0	O	0	Û	0	0	1
56:00	n	U	n	n	٨	٨	ō	n	n	A	Ä	ň	n	Ā
00.00					v	v			v	v	v	U	v	y .
97:00	U	V	U	Ü	0	0	0	0	0	0	0	0	0	0
05:00	Û	2	5	0	a	n	n	0	1	n	n	n	n	10
09:00	۸	•	- 7		•	•	•	,	•	•				• • •
	V	'	•	V	U	U	¥	Ų	U	Ų	Ų	U	U	11
19:00	Q.	7	2	0	3	0	0	0	0	0	0	0	Û	12
11:CO	ń	7	7	ñ	ž	ň	ň	ň	j	ň	Ā	Ď	ň	19
	•	•	•	v	3	v	٧	٧	•	v	v	U	U	13
				-										
12:00 pm	0	7	5	O	1	2	. 0	A	Û	O.	Λ	Λ	n	17
01:00	3	11	- 7			-	,			•	*		ž	10
	- 4	11	3	Ų	Ţ		U	Ų	v	Ų	Ų	U	U	18
02:00	0	20	7	0	4	0	0	0	2	0	0	0	0	33
03:00	0	17	7	ñ	i	Ā	ń	1	ñ.	ň	ň	ň	á	24
	Ā	- 13	•		1		•		•	•	v	·		43
04:00	Ų	13	5	Ų	Q	Ū	Q	Q	0	Q	0	O	Q	18
05:00	0	10	3	0	1	Ô	O	5	O	Ď	٥	0	Ĉ	14
06:00	٥	1	1	Á		ň	ň	1	ň		ā	ň	Ä	10
01.00	,	•			-		Ÿ	Ť	Ų	V	Ų	Ū	Ų	10
07:00	U	3	2	Ū	Ū	0	Ð	0	Ð	0	0	0	0	5
08:00	0	3	2	O	O	ß	ß	ñ	٨	٨	٨	ß	n	ς
09:00	ň	5	•	ŏ	ň	Ň	Ň	۸	Ĭ	^			•	
	Ÿ	9	4	Ų	Ų	v.		Ų	U	U	IJ	U	Ū	1
19:00	0	7	1	Ç	0	0	0	Q	0 -	0	0	0	0	8
11:00	0	1	2	0	Û	Λ	n	O	n	ń	ň	ō	ň	1
Tau Tatala	1	136			- 71				,	*	- -			
11:00 Day Totals	2	130	56	1	21	2	ż	2	9	† ,	*	•	*	222
	2	130	56	1	21	2	*	2	9	1 ,	Ť	+	1	222
	.2 n	130	56		21	2		2	9	† ;	, ,	•	^	222
12:00 02/25	0	130	56 1	0	21	0	0	2	9	0	0	0	ů O	222
12:00 02/25 01:00 G	2 0 0	130 1 0	56 1 0		21 0 0	0 0	0 0	0 0	9 0 0	0	0 0	0	0	222 2 0
12:00 02/25 01:00 G	2 0 0	130 1 0 0	56 1 0		21 0 0	2 0 0	0 0 0	0 0	9 0 0	0 0	0 0	0 0	0	222
12:00 02/25 01:00 Sun 02:00	0 0	130 1 0 0	56 1 0 0		21 0 0	0 0	0 0	0 0 0	9 0 0	0 0 0	0 0	0 0	0	222 2 0 0
12:00 02/25 01:00 Sun 02:00 O	0 0 0	130 1 0 0	56 1 0 0		21 0 0 0	0 0 0	0 0 0	2 0 0 0	9 0 0 0	*	0 0 0	0 0 0 0	0 0 0	222 2 0 0 1
12:00 02/25 01:00 Sum 02:00 03:00 04:00	2 0 0 0 0	130 1 0 0 0	56 1 0 0		21 0 0 0 0	0 0 0 0	0 0 0	2 0 0 0 0	9 0 0 0 0	*	0 0 0	0 0 0	0 0 0	222 2 0 0 1
12:00 02/25 01:00 Sum 02:00 03:00 04:00	2 0 0 0 0	130 1 0 0 0	56 1 0 0 1		21 0 0 0 0	2 0 0 0 0	0 0 0	0 0 0 0	9 0 0 0 0	0 0 0 0	. 000000	0 0 0 0	0 0 0 0 0	222 2 0 0 1
12:00 02/25 01:00 Sum 02:00 03:00 04:00 05:00	0 0 0 0 0 0	130 1 0 0 0 0	56 1 0 0 1 0		21 0 0 0 0	0 0 0 0	0 0 0	2 0 0 0 0	9 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	• 00000	0 0 0 0	0 0 0 0 0 0	222 2 0 0 1 0
12:00 02/25 01:00 Sum 02:00 Sum 03:00 04:00 05:00	2 0 0 0 0 0	130 1 0 0 0 0 0	56 1 0 0 1 0		21 0 0 0 0 0 0	2 0 0 0 0 0	0 0 0 0 0	2 0 0 0 0 0	9 0 0 0 0 0	*	• 000000	000000000000000000000000000000000000000	0 0 0 0 0	222 2 0 0 1 0 1
12:00 02/25 01:00 Sum 02:00 Sum 03:00 04:00 05:00 05:00 07:00	2 0 0 0 0 0 0	1 0 0 0 0 0 4 4	56 1 0 0 1 0 0 0 5		21 0 0 0 0 0 0	2 0 0 0 0 0	0 0 0 0	2 0 0 0 0 0	9 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	* 0000000	000000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	222 2 0 0 1 0 1 8
12:00 02/25 01:00 Sum 02:00 Sum 03:00 04:00 05:00 05:00 07:00	2 0 0 0 0 0 0	1 0 0 0 0 0 4 4	56 1 0 0 1 0 0 0 5		21 0 0 0 0 0 1 4	000000000000000000000000000000000000000	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	*	• 00000000	000000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9
12:00 02/25 01:00 Sum 02:00 Sum 03:00 04:00 05:00 05:00 07:00 08:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 4 4 22	56 1 0 0 1 0 0 5 7		21 0 0 0 0 0 1 4 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	* 00000000	000000000000000000000000000000000000000	0 0 0 0 0 0	2 0 0 1 0 1 8 9
12:00 02/25 01:00 Sum 02:00 Sum 03:00 04:00 05:00 06:00 07:00 08:00 09:00	2 0 0 0 0 0 0 0	1 0 0 0 0 0 0 4 4 22 13	56 1 0 0 1 0 0 5 7		21 0 0 0 0 0 1 4 0	0 0 0 0 0 0 0	0 0 0 0 0 0	2 0 0 0 0 0 0	9 0 0 0 0 0	*	• 0000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	2 0 0 1 0 1 8 9
12:00 02/25 01:00 Sum 02:00 Sum 03:00 04:00 05:00 05:00 07:00 08:00	2 0 0 0 0 0 0 0	1 0 0 0 0 0 0 4 4 22 13	56 1 0 0 1 0 0 5 7		21 0 0 0 0 0 1 4 0 0	000000000000000000000000000000000000000	0 0 0 0 0 0 0	2 0 0 0 0 0 0	9 0 0 0 0 0	* 000000000000000000000000000000000000	• 0000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	2 0 0 1 0 1 8 9 29
12:00 02/25 01:00 Sum 02:00 Sum 03:00 04:00 05:00 05:00 07:00 08:00 09:00 10:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 4 4 22 13	1 0 0 1 0 0 0 5 7 4 6	0 0 0 0 0 0 0 0	0 0 0 0 1 4 0	000000000000000000000000000000000000000	- 0000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22
12:00 02/25 01:00 Sum 02:00 Sum 03:00 04:00 05:00 06:00 07:00 08:00 09:00	2 0 0 0 0 0 0 0	1 0 0 0 0 0 0 4 4 22 13	56 1 0 0 1 0 0 5 7 4 6		21 0 0 0 0 0 1 4 0 0	0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	2 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	* 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	• 0000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	2 0 0 1 0 1 8 9 29
12:00 02/25 01:00 Sum 02:00 Sum 03:00 04:00 05:00 07:00 08:00 09:00 10:00 11:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 4 4 22 13 15 26	1 0 0 1 0 0 0 5 7 4 6	0 0 0 0 0 0 0 0	0 0 0 0 1 4 0	000000000000000000000000000000000000000	- 0000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22
12:00 02/25 01:00 Sum 02:00 03:00 04:00 05:00 07:00 08:00 09:00 10:00 11:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 4 4 22 13 15 26	1 0 0 1 0 0 0 5 7 4 6	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		- 0000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	0000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33
12:00 02/25 01:00 Sum 02:00 03:00 04:00 05:00 07:00 08:00 09:00 10:00 11:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 4 4 22 13 15 26	1 0 0 1 0 0 0 5 7 4 6 6	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000		000000000000000	000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33
12:00 02/25 01:00 Sum 02:00 03:00 04:00 05:00 07:00 08:00 09:00 10:00 11:00 12:00 pm	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 4 4 22 13 15 26	1 0 0 1 0 0 0 5 7 4 6 6	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 1	0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000		000000000000000000000000000000000000000	0000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33
12:00 02/25 01:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 4 4 22 13 15 26	1 0 0 1 0 0 0 5 7 4 6 6	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 1	0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000			0000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33
12:00 02/25 01:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 4 4 22 13 15 26	1 0 0 1 0 0 0 5 7 4 6 6	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000				0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33
12:00 02/25 01:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 4 4 22 13 15 26	1 0 0 1 0 0 0 5 7 4 6 6 6	0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33
12:00 02/25 01:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 4 4 22 13 15 26	1 0 0 1 0 0 0 5 7 4 6 6	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000				0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33 21 26 39 28 24
12:00 02/25 01:00 02:00 02:00 03:00 04:00 05:00 07:00 08:00 09:00 10:00 11:00 12:00 pm 01:00 03:00 04:00 05:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 4 4 22 13 15 26	1 0 0 1 0 0 0 5 7 4 6 6 6	0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33 21 26 39 28 24
12:00 02/25 01:00 02:00 02:00 03:00 04:00 05:00 07:00 08:00 09:00 10:00 11:00 12:00 pm 01:00 03:00 04:00 05:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 4 4 22 13 15 26 19 27 18 20 13	1 0 0 1 0 0 0 5 7 4 6 6 6	0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	0 0 0		000000000000000000000000000000000000000					0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33
12:00 02/25 01:00 02:00 03:00 04:00 05:00 07:00 08:00 09:00 10:00 11:00 12:00 pm 01:00 02:00 03:00 04:00 05:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 4 4 22 13 15 26 19 27 18 20 13	1 0 0 1 0 0 0 5 7 4 6 6 2 3 1 2 9 4 1 3	0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	0 0 0 0		000000000000000000000000000000000000000					0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33 21 26 39 28 24
12:00 02/25 01:00 02:00 03:00 04:00 05:00 07:00 08:00 10:00 11:00 12:00 pm 01:00 03:00 04:00 05:00 07:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 4 4 22 13 15 26 19 27 18 20 13 1	1 0 0 1 0 0 0 5 7 4 6 6 6	0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	0 0 0 0		000000000000000000000000000000000000000					0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33 21 26 39 28 24
12:00 02/25 01:00 02:00 03:00 04:00 05:00 07:00 08:00 10:00 11:00 12:00 pm 01:00 02:00 03:00 04:00 05:00 07:00 08:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 4 4 22 13 15 26 19 27 18 20 13 1	1 0 0 1 0 0 0 5 7 4 6 6 2 3 1 2 9 4 1 3 0	000000000000000000000000000000000000000	000000000000000000000000000000000000000	0 0 0 0 0 0							0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33 21 26 39 28 24
12:00 02/25 01:00 02:00 03:00 04:00 05:00 07:00 08:00 10:00 11:00 12:00 pm 01:00 02:00 03:00 04:00 05:00 07:00 08:00		1 0 0 0 0 4 4 22 13 15 26 19 27 18 20 13	1 0 0 1 0 0 0 0 5 7 4 6 6 2 3 1 2 9 4 1 3 0 0 0	000000000000000000000000000000000000000	000014000000000000000000000000000000000	000000000							0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33 21 26 39 28 24
12:00 02/25 01:00 02:00 03:00 04:00 05:00 07:00 08:00 11:00 12:00 pm 01:00 02:00 03:00 04:00 05:00 07:00 03:00 04:00 05:00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 4 4 22 13 15 26 19 27 18 20 13 1	1 0 0 1 0 0 0 0 5 7 4 6 6 2 3 1 2 9 4 1 3 0 0 0 0 0 0		000014000000000000000000000000000000000	0 0 0 0 0 0							0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33 21 26 39 28 24
12:00 02/25 01:00 02:00 03:00 04:00 05:00 07:00 08:00 11:00 12:00 pm 01:00 02:00 03:00 04:00 05:00 07:00 03:00 04:00 05:00		1 0 0 0 0 4 4 22 13 15 26 19 27 18 20 13 1	1 0 0 1 0 0 0 0 5 7 4 6 6 2 3 1 2 9 4 1 3 0 0 0	000000000000000000000000000000000000000	000014000000000000000000000000000000000	000000000							0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33 21 26 39 28 24
12:00 02/25 01:00 02:00 03:00 04:00 05:00 07:00 08:00 11:00 12:00 pm 01:00 02:00 03:00 04:00 05:00 07:00 03:00 04:00 05:00		1 0 0 0 0 4 4 22 13 15 26 19 27 18 20 13 1	1 0 0 1 0 0 0 0 5 7 4 6 6 2 3 1 2 9 4 1 3 0 0 0 0 0 0		000014000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33 21 26 39 28 24
12:00 02/25 01:00 02:00 03:00 04:00 05:00 07:00 08:00 11:00 12:00 pm 01:00 02:00 03:00 04:00 05:00 07:00 03:00 04:00 05:00		1 0 0 0 0 4 4 22 13 15 26 19 27 27 18 20 13 18 3 8 2	1001100057466 2312941300010		000014000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					000000000000000000000000000000000000000		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33 24 4 4 8 3 8 3
12:00 02/25 01:00 02:00 03:00 04:00 05:00 07:00 08:00 11:00 12:00 pm 01:00 02:00 03:00 04:00 05:00 07:00 03:00 04:00 05:00		1 0 0 0 0 4 4 22 13 15 26 19 27 18 20 13 1	1 0 0 1 0 0 0 0 5 7 4 6 6 2 3 1 2 9 4 1 3 0 0 0 0 0 0		000014000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 1 0 1 8 9 29 19 22 33 21 26 39 28 24

BASTBOUND, WESTBOUND

COUNTY OF RIVERSIDE
BACTISTA ROAD/BAST OF FAIRVIEW AVENUE
7 DAY DIRECTIONAL CLASSIFICATION COUNT

Site Code: 523806 Start Date: 02/20/2001 File I.D.: CRBAROFA Page

∃egil		Cars .	E 2 Axle		2 3-14	1 1-1	2 3 - 1	100000	. <u> </u>	עועט				<u>Page</u>
7.90	Bikes	Tl:	Long	Bres	C C Time	. Cinal	AXI	ECS AX	Te 2 YI	e>6 Axle	<6 Arle	6 Arle	of Axle	 -
12:00/02/26	<u> </u>		1 0	3-3-	0 6	510919	21001	<u>Dono</u>	<u>(e Doub)</u>	e Douple	Huli	Multi	Multi	Total
: 30474 -4	ň		1 1		0 (, o	ļ)	0	0 0	0		0	1
2:00			, 1			0	(}	0 (0 0	0	0	Ò	1
3.86	-0			İ	V D	0	. ()	0 j	1 0	0	Ô	Ō	1
1:0%	0	•	U		0 0	0	(l	0 3	Ì	Ŏ	ō	ň	1
:005	0	2	U	(0	0	0		0 2	? 0	ā	ñ	ň	3
:00)	0	2	0	(2	0	0		0 2	i	Ŏ	ň	n	1
	U		9	() 6	4	0		$0 \bar{1}$	ň	Ô	ň	n n	70
1:00	U	12	š	0	3	0	0		0 2	Ú	0	ň	٨	28
:00	Ų	9	8	0	9	1	0	(0 4	ň	3			20 32
9:00	0	2	9	2	4	2	0		l i	ñ	ń	0	0	32
1:30	0	4	6	0	3	1	0	i	1	ň	'n	٨	0	21
:00	V	1	4	1	2	0	0	(, 6	Ö	1	ő	0	18 21
:00 pm	0	5	7	0	1	n	٨		, .	_	_		-	
:00 ~	0	7		Õ	1			-	1	0	0	0	0	14
:00	0	12	Ġ	ŏ	į	1	0	4	•	Q	Ū	0	0	19 21
:00	0	8	4	ă	i	1	ň		1	. 0	0	Q	0	. 21
:00	Đ	15	8	٥	i	ĥ	ň	1	4	U	0	0	0	18
:00	0	22	4	ā	i	ņ	ň	1	Ų	U	Ç	0	0	28 30
00	0	4	6	Ď	ń	٨	0	1	U	Ū	Q	0	0	30
00	0	4	Č	Õ	ň	ň	4	0	Ü	Ų	Ç	0	Ç	10
ر00	0	2	1	Ď	ĭ	ñ	ň	0	Ų	0	0	0	0	4
005	0	1	ž	Ŏ	Ô	Ô	r	V A	V	0	Q	0	0	4
005	0	5	Ö	Ď	ŏ	ň•	Ď	0	U A	. U	0	g	0	4 1
00	0_	4	0	Ŏ	ŏ	ñ	Ô	0	V	Ų	0	0	0	5
Totals	ŧ	136	83	3	43	10	<u>Y</u>	5	35	<u>U</u>			<u> </u>	117
								_			•	-	•	317
ais	11	953	509	q	312	55	7	11	200	_				
cent			23.81	.4}	14.6}	2.5ł	.01	1 05	252	1	7	0	1	2133
					11.01	4.31	. 4 8	1.0%	11.8}	.01	.31	: 0 %	nt.	

305 7-DAY AVE. BAUTISTA RO/NORTH OF PRISOR TOURT SALE TOURT

Site Code : 523831 Start Date: 02/21/2001 File I.D. : CRBANOPR

		m coast						HORTH/	CATTE					?ile [.D.
3eç:1		Carsa	2 Arle		Azle	1 Arle	4 Arle	.5 1-1	5 1-1-	>5 Ax1	a6 1-1	C 1=1=		53C6
e	Bikes	Tlrs	Long	Buses (Tire	Single	Siagle	Double	Doub!e	ouble co	Multi	Molei	>6 AXL _Nulci	91
12:00 02/21	0	0	0	0	0	0	0	0	0	0		nue ta		Total
02:00 Wed	0	0	0	0	0	0	0	0	0	Ŏ	č	å	n	V
17:00	0	0	0	0	0	0	0	0	0	Ô	ū	Ď	ň	0
03:00	0	0	0	0	0	0	0	0	0	ò	Ŏ	Õ	Ô	u n
04:00	0	0	G	Q	0	0	0	0	0	ō	ō	ō	ă	n
05:00	0	1	1	0	. 0	0	0	0	0	Ó	ă	Õ	Õ	,
06:00	U	•	6	0	0	0	0	0	¢	0	Ö	Ō	Ď	10
07:00	U	7	I	0	Q	0	0	0	0	0	Ō	Ö	ò	8
98:00 99:00	Ü	b	4	0	5	1	Q.	G	0	0	0	Ō	ō	15
10:00	0	•	,	0	0	0	0	0	0	0	0	0	0	12
11:00	ů A	7	1	Ü	1	0	0	0	0	0	0	0	0	3
11.00	v	4	J	Ü	4	Ū	0	0	0	Ç	C	0	0	9
12:00 pm	1	,	2	٨	1					_	_	_*		
01:00	ō	i	ŝ	n	4	Ţ	U	U	0	0	0	0	0	7
02:00	i	š.	2.	ń	2	0	· V	U	Ü	Ü	0	0	0	9
03:00	õ	š	2	n	"	1	ų A	ų A	Ü	Ü	0	0	0	12
04:00	Û	j	3	Ô	i	ų ,	۸	۷	U.	U	U	0	0	8
05:00	0	ġ	Š	Č	Ò	Ī	ň	Ů	0	Ü	ľ	U	Q .	10
06:00	0	3	Q	Ŏ	Ō	-	Ô	-8	0		V	U	Ų	15
07:00	0	0	<u> </u>	Ō	Ŏ	Ď	ō	Ô	<u>π</u>	n	Û	V 0	Ų.	
00:80		0	0	0	0	0	0	0		Ů	Ů	0		Ų
09:00	0	1	1 .	0	0	ō_	Č	ă	ŏ	Û	ň	n	V	V 3
10:00	0	3	1.	0	1	Ō	Ö	Č	ő	Ď	n	Ď	ı.	5
11:00	 _		0	0	0	0	0	0	_ 0	Ŏ	Ŏ	Õ	ň	i
Day Totals	2	60	45	*	21	4	t		1	t	1	ż	t	132
12:00 02/22	٥	. n	•	•					_					•
01:00 -7/	Ô	n	Ô	0	V	Ų	Ü	0	0	Q	G	0	0	0
01:00 Thun 02:00 Thun	ă	ก	٥	0	V	0	U	0	0	0	0	0	0	0
03:00	Ŏ	Ŏ	Ŏ	ň	Ô	0	V	Ų.	V	g	Q	0	Ģ	Ģ
04:00	Ö	i	Ō	ñ	۱۱	0	0	Ų	U	Ü	0	0	0	0
05:00	0	2	يان 0	. ŏ	Ŏ.,	رد و () ,	0 -		U	U	0	0	1
06:00	0	9 2 9	ا) و ب	. 0	i (41	(0	ň	, C) ,	0	Ų	U	U	2
07:00	0	1	ير و ا	. O	ō	Ŏ	· š	ň	ń	0	Ų A	Ų	0	12
00:60	0		£,	Ō	1	0		 -		ň	0	4	V	13
09:00	0	4	1	0	Ç	i	ō	Ŏ	å	ñ	ñ	n	0	11
10:00	0	1	2	0	0	Ō	Ō	Ŏ	ă	Ö	Ŏ	0	Ö	7
11:00	0	3	4	0	1	0	0	Ō	Ō	Ö	Ŏ	Ō	ů	, ,
12:00 pm	0	1	,	•	_			_			-	•	•	•
01:00 pm	0	2 7	3 4	0	0	0	0	3	0	0	Ø	0	. 0	8
02:00	Õ	Ĺ	<u> </u>	¥	0	0	0	1	0	0	0	0	0	12
03:00	Ô	7	,	O O	1	0	.0	. 0	0	0	0	Q	0	10
04:00	Ď	ć	1	. V	2	Ü	0	0	0	0	Q	0	0	13
95:00	ŏ	š	Ė	V A	0	V	.Q	0	Q	0	0	0	0	12
36:00 37:00	Ō	i	ŏ	n .	0	0	0	0	Ū	0	0	0	0	12 10 13 12 12
37:00	0	ī	i	ă	0	ň	ų A	U A	Ü	Ū	0	G	0	
93:00	0	ī	ō	Ŏ	Û	. 1	0	0	0	Ü	0.	Q '	0	2
19:00	0	ĺ	š	ă	Ŏ	. 0	ů	ň	ů C	0 O	Ü	0	0	1
10:00	G	. 0	2	ō	ī	ŏ	ā	ň	Û	0	0	ľ	0	4
1:00	0	2	0	<u> </u>	Ō	ā	ŏ	õ	0.	0	0		0] .
Day Totals	r	65	\$5	+	13	1	•	4		<u>v</u>		1		138
								-				-	•	174

Source Sell Jak

BASTISTA RD/MORTE OF PRISON TO DAY CLASSIFICATION COUNT

Site Code : 523831 Start Date: 02/21/2001 File I.D. : C3BAHOPR Page : 1

. DAT COASS:	iritar-o	2 20041						NORTE/	can+tr					File I.D.
Begla		Carsa 2	Azle	7	Arle] Arle	4 Axle	(5 17)	SATIA	≥5 Axl	c6 3+1	5 dria	.£ 491	3365
Tite	likes	Tlrs	Long	<u> Buses á</u>	fire	Single	Single	Double	Double	Double	Multi	Multi	Mulri	Total
12:00 02/23	0	0	0	0	0	0	0	0	0	J	ĵ	0	0	1
机的东	U	Ų	U	0	0	. 0	0	0	0	0	0	0	Ó	ð
32:00 / 2 33:00	u A	U	Ų	0	į.	0	0	0	0	ŋ	g	ĵ	0	j
04:00	0	0	U	U	Ü	0	0	0	0	0	0	0	0	J
95:00	0	1	1	ų a	Ű	U .	0	0	0	0	0	0	0	J
35:00	å	6	1	n	0	0	U	. 0	Û	0	0	0	0	1
27:00	ŏ	ă	6	ñ	1	0	0	U	V	. ()	0	0	0	13
03:00	Ŏ	j	ī	å	2	Õ	n	0	0	Ü	Ü	0	Ū	?
99:00	0	5	4.	Ŏ	2	ŏ	å	G	0	v n	0	0	0	1:
10:00	0	1	8	Ó	2	ī	ă	Ŏ	Õ	Û	ů,	. U	Û	12
11:00	0	3	4	0	2	0	0	Ō	ō	Õ	Ō	Ö	Ö	9
12:00 pm	0	0	2	0	0	0	0	0	0	0	0	0	C	2
01:00 02:00	O B	7.	?	0	1	0 -	, 0	0	0	0	Ö	Ö	Ö	10
03:00	ų A	j L	1.	U	0	0	0	0	Q	0	0	0	0	4
04:00	Ô	6	1	0) 1	V	Ü	Ü	0	. 0	0	0	0	13
05:00	ŏ	i	į	Õ	Ō	0	0	ů n	Ü	0	g A	0	0	10
06:00	0	i	Ŏ	Ŏ	Õ	ō	ŏ	Ô	ก	٥	0	V A	U	11
07:00	0	1	1	0	0	Ŏ	Ŏ	Ŏ	Ğ	Õ	Õ	Ô	ß	
00:80	0	Ç.	0	Ö	0.	0	0	0	ð	Ō	Ŏ	ŏ	Ŏ	Ò
09:00 10:00	IJ	Ū O	1	0	0	0 •	. 0	0	0	0	0	Ó	Ō	i
11:00	ň	t t	0	0	1	0	0	0	0	0	0	0	0	1 .
Day Totals	i	48	45	ŧ	17	I I	*	- 0	1	t t		0	0	0 111
12:00 02/24	A	n	a	Λ	۸			•		_				
31:00 Sat	Ŏ	Ŏ	Õ	0	ñ	Ů	0	Ų	0	0	0	0	Q .	0
J2:00	0	0	Ö	Ŏ	ā	Õ	ŏ	ŋ	n	n	Ŋ	ų A	V	Ų
03:00	G	0	0	Đ	0	Ğ	Ö	ŏ	ŏ	Ö	Č	Ď	η.	0
04:00	0	0	0	0	G	0	0	. 0	Ö -	Ö	Ŏ	ŏ	Ŏ	ů
35:00 36:00	U	0	0	0	0	G	0	0	0	0	0	Ō	Ō	Ŏ.
17:00	0	1	1	Ü	0	0	0	0	0	0	0	0	0 ,	6
78:00		0 .:	- 0 -		- 0	. 1	U	Ū	g	0	0	Ç	0	1
19:00	Ō	ب 0 7	0 -	١	Ö	1 0	n	ň	0	Ü	U	Q	0	0
.0:00	0	2	ž	Ŏ	Ŏ	Ŏ	Ö	Ö	0	0	0	Q .	0	8 C
.1:00	0	7	3	0	0	Ö	Ö	Ŏ	ō	Ō	ŏ	Ö	0	9 .
.2:00 pm	0	5	3 .	0	0	0	0	0	0	0	0	g	0	8
1:00 - 2:00	0	8	. 0	0	0	0	0	0	0	Q.	0	Ö	Ō	į
3:00	0	9 7	· 3	0	0	0	0	0	0	0	0	0	0	12
4:00	Ó	Ś	1	Ü	0	0	Ç	- 0	0	0	0	0	0	9
5:00	Ŏ	ž	Ô	Ô	0	U N	Ţ	0	0	0	0	. 0	0	7
5:00	0	2	ž	ā	ŏ	ŏ	0	0	0	U.	0	Q A	Ų O	7
7:00	0	2	1	Û	Ō	Ö	Ó	Ö	Ö	ŏ	0	6	. 0	3 1
3:00 9:00	Q	0	1	0	0	0	0	0	0	Ō	Ö	Ö	Õ	i
7:00 7:00	ñ	1 2	0	0	0	0	0	0	0	0	0	Ō	0	ī
.:00	ŏ	ů.	· 1	0 n	0	0	Q	0	0	0	0	0	0	2
ly Totals	•	63	24	•	•	<u> </u>	<u> </u>	1	0	- <u>(</u>	<u> </u>	-0-	<u> </u>	
			•			, ~	1	-	-	•	•	•	• .	88

6.77 777

Site Code : 52]8]1 Start Date: 02/21/2001 Pile I.D. : CRBANOPR

				_				MCRTE/	cones					?:.a [.D.
Зес:п		Carsé 2	Arie	2	Axle] Azle	4 Axie		- 1-1	35 Avl	ci 171	6 Arie	* 1-1	2106
11:00 02/25	Bikes	Tirs .	_rond_	Buses S	Tire	Single	Single	Double	Doub!	Doub!	Majiri	igte o	>8 AII Wel≁i	=
11:10 02/23	0	9	9	0	0	0	0	0	0	0	ŋ	J	0	Total
11:30 Sun 11:30	0	0	0	U	U	0	0	O	. 0	0	0	Ō	ō	8
93:30	Ô	1	ň	V	U	U	0	0	0	0	3	0	0	ā
94:00	ŏ	ō	å	Ö	ı ı	0	0	U	0	. 0	0	0	0	i
05:00	0	Ō	Ö	Õ	å	A	n	Ü	Ų	0	0	0	0	9
96:00	Q	2	0	ō	ī	ō	ā	o	V A	ų n	Û	0	0	<u> </u>
97:00	0	0	1	0	Õ	Ŏ	ŏ	ŏ	ß	ก	n n	U	Ü	3
93:90	0	4	0	0	0	0	Ó	ŏ	ő	ů	0	o O	υ 1	1
09:00 10:00	Ų	}	Ō	0	0	0	0	0	Ō	Ō	ŏ	- 0	Ċ	1
11:00	0	15	l	0	0	0	0.	0	0	Ō	Ō	ŏ	õ	6
	٠	L.	2	U	. "	0	0	. 0	0	0	0	0	0	17
12:00 pm	0	7	1	0	G	0	0	0	0	a	a	n	Λ	
01:00 02:00	0	8	2	0	O	0	. 0	Ŏ	ŏ	Ö	ů	n	0	10
03:00	0	21	7	0	0 .	0	0	0	0	Ö	ō	ā	ů	23
04:06	0	å	U T	1	0	0	0	0	0	0 -	0	Ō	Ğ	وُ
05:00	ŏ	2	1	ň	4	Ü	Ū	0	0	0	0	Q	Q	9
96:00	0	Õ	Ō	Ŏ	ð	0	0	U	0	0	0	-0	. 0	3
07:00	0	_ 3	0	Ō	Ŏ	ŏ	Ô	1	0	0	0	Į.	0	Q
09:00 09:00	0	7	Ū	0	0	0	0	;	ŏ	ő	ñ	0	n	
10:00	U	I	0	0	0	0 🛖	0	Ŏ	Ŏ	ŏ	ů	å	Õ	1
11:00	0	N	1	0	0	0	0	Û	0	0	Ö	Ŏ	Ŏ	i
Day Totals	t	93	12	1	<u>V</u> 1	1		-	0	- 0	0_	0	0	0
11.00 02/20			_	•	•		_	•	•	t	7	t	•	107
12:00 02/26 01:00 When.	Ü	0	0	0	0	0	0	0	0	0	0	۵	0	n
02:00	U.	Ů	T .	0	0	0	0	Ō	0	0	0	Ŏ	Ŏ	ĭ
03:00	Ö.	å	Õ	Ð	0	0	Ü	0	0	0	0	0	0	0
04:00	0	Ŏ	Ö	Õ	Õ	ů.	. 0	0	Q A	Ü	0	0 .	0	0
05:00	0	2.	0	Ö	Ğ	ŏ	ŏ	0	0	Ų A	0	0	- 0	0
95:00 97: <u>0</u> 0	0	(ئِرِيَّةِ	_6_(i)	C	0	0	Ŏ	č	Ŏ	ů	Ô	0	U A	12
J8:00	— <u>V</u>	<u> </u>		<u></u>	1	0	_ 0	0	Ō	Ğ	å	ů	0	12
99:00	Ô	3	1	0	4	0	. 0	0	0	Û	Ō	Ö	ŏ	13
	Õ	ĵ	1	0	0	1	0	0	0	0	0	0	0	4
10:00 11:00	0	Š	ō	Ö	Ö	1	0	0 1	0	0	0	0	0 .	5 .
12:00 pm	۵					•	٧	•	٧	0	0	0	0	6
91:00	.0	2 1	. 4	0.	0	0	0	0	0	0	0	0	0.	6
01:00 02:00	Õ	7	2	0	0	0	0	0	0	0	0	0	Ō	i
73:00	ő	j	i ·	å	()	0	0	. 1	0	0	0	Û	0	10
14:00	0	7	i	ā	۷. 4	0	Û	. n	0	Ç.	0	0	0	7
15:00	0	8	4	ō	Ċ	ŏ	Û	0	V 0	Ų	0	0	0	12 12
15:00	0	3	1	Ô.	Ō	Ŏ	ŏ	0	n .	Ŋ	0	U	0	12
17:00 3:00	0	0	0	0	0	0	Ó	Ö	Ŏ	Õ	0	V 0	U A	ŧ
9:00	0	Ţ	0	•	0	<u>o</u>	0	. 0	Ö	Ŏ	j	Õ	0	V 1
3:00	0	1	n n	0	Q •	0	0	0	0	0	Ŏ	Ö	ō	ð
J:00 I:00	Ŏ.	_ 0	0	_	() ()	0 0	0	0	0	0	0	0	ō ·	j
ay Totals	1	64 3	I	1 1	<u> </u>	2	<u> </u>		•	<u> </u>	<u> </u>	0	0	
		<u> </u>	´		•	•	•	I	•	•	t	t	t	108

31:27/37/4

.

BAUTISTA RD/NGRTH OF PRISCH TOAY CLASSIFICATION COUNT

Site Code: S21831 Start Date: 02/21/2001 File I.D.: CRBANOPR

3								NORTH/	SOUTE					?age	CZZVA
3eg1a	• ' !	Cars	i 2 Axle		2 Axle] Azle	4 yrje	<5 Axl	5 Arle	o5 Arl	<6 Ari	6 Arle	>6 Ar!		
110	3:kes	71-	s Long	Buses	<u> Tire</u>	Single	Single	<u>Double</u>	Double	Double	Multi	Multi	Multi	Total	
12:00 02/27	0		9 9	Q	0	. 0	G	Û	0	0	0	0		<u></u>	
11:00 Tues	. 0) ()	0	0	0	0	0	0	à	ĝ	ō	ň	U A	
32:00	Q		jû	0	0	0	0	0	0	Ō	1	ň	^	v	
03:00	0	;	3 0	O	0	0	6	Ð	à	ň	ä	n	Λ.		
04:00	Q	;	: 0	0	0	0	0	٥	ō	ň	ŋ	0	4	U	
05:00	0	;	1	0	0	C	ā	ă	ō	ň	0	4	2	1	
05:00	0		12	Ð	Ö	à	Ď	ň	ů	٥	7		v A	1	
07:00	0		0	Ö	Ď	Ď	Ď	Ď	Ů	0	0		U	13	
03:00	1		3	Ò	Š	Ĭ	ň	ň	Ų	ň		ď	U		
09:00	0	é	Š	ă	ā	ō	Ď	ก	n n	0	Ü	U	U	15	
10:00	0		. 1	Ò	i	ă	ō	'n	0	0	ŭ	U	U	12	
11:00	0	2	4	Ŏ	ž	ñ	Ů	n	. v	u n	V	Ü	Ų	4	
				•	•	•	•	v	v	V	v	U	Ų	8	
12:00 pm	1	2	3	0	2	0	n	a	Λ		٨				
01:00	0	4	4	Õ	ō	ā	Ď	ň	6			V	U	8	
02:00	1	5	3	Ŏ	ž	ō	, ,	ň	ň		V A	¥	Ü	. 8	
03:00	0	2	2	Ŏ	3	ō	ň	۷.	ň	, ,	V	U	Ų	11	
04:00	0	3	4	á	2	ă	ň	ñ		, v		v	Ų	/	
05:00	0	7	Š	Ŏ	2	ŏ	ň	ň	ň	V		V	V	, y	
06:00	0	3	ă	Ŏ	i	ň	ň	0	0	V	v	Ų	U	14	
07:00	0	Ō	i	ŏ	Ď	ň	ň	Ŋ.		۷.		v	Ų	4	
08:00	0	2	Ō	ă	Ō	ŏ	ň	۸	0	4	U	V	Ų	1	
09:00	3	2	Ŏ	ĭ	Û	å.	ň	0	n	V	Ų	Ü	0	2	
10:00	0	1	1	ō	Ŏ	0.7	ň	ň	٨	۸	U	U	Ų .	6	
11:00	. 0	Ō	ō	ŏ	ň	Ō	Ú	0	0	V	V	Ü	0	2	•
Day Totals	6	57	50	1	20	1	- +			<u>- y</u>	- V	<u> </u>			
-		-		•	• •	•		-	•	•	1	1	t	135	
Parala			• • •	_											
Totals	8	450	262	2	82	9	1	5	0	0	0	Q	0	819	
Percent	.91	54.91	31.98	.21 1	0.0%	1.11	.11	.6}	.01	.01	.01	.01	.01	44 7	
										• • •					

117 2-DAY AVE BAUTISTA ROAD S/O TRIPP FLATS ROAD
DAY DIRECTIONAL CLASSIFICATION COUNT

Size Code : 523810 Start Date: 02/20/2001 File I.D. : CRBASTP

Page 1

Begin		Cars i					PTROK	GUND.	<u>DOBETUOS</u>	פא				File I.D. Page
1144 	3ikes	ilis.	Long	Aucoc C	AYLE	l yxle	i Axie	<5 Azle	5 Axle>	e yr se	i Arie	6 Arle:	of Arle	
12:30 02/20	0	1003	30110	<u> Buses 6</u> N	1116	Singia	213015	nonple	<u>Donpie</u>	Double	Mult:	Multi	Multi	Total
31:30	ň	9	Ų	0	U A	Ű	ป	0	0	0	0	0	0	0
02:30	ō	1	n	0		U	Ü	Ü	Q	0	0	0	0	Ō
03::00	ň	3	ถ	0	V	U	U	U	Q	9	0	0	0	0
94:30	n	1	0	0	V	U	g.	0	Q	0	ĵ	0	0	Ŏ
SE:00	0	0	n	υ Λ	. U	0	9	0	Q	0	0	0	Q	1
36:00	n	3	Ų	U	Ü	Ü	0	O	0	Û	0	0	0	0
07:00	ň	1	1	U	Ų	Û	Ĵ	0	0	0	0	0	0	4
03:50	ñ	7	2	u	U	Ü	0	0	0	0	0	0 .	0	Ī
09:00	n	ń	0	0		Ų	Ū	O	0	0	0	0	0	4
10:00	ň	0	ď	Ų A	V	U	Ü	0	0	0	0	0	0	0
11:00	ň	ň	n.	0	0	Ü	0	0	Q	0	0	0	0	C
	•	•	٠	ų ·	U	U	U	Ü	0	O	0	0	0	0
12:30 pm	0	a	1	Λ	ň	4	•							
01:00	ō	Š	Ť	ů Ú	, Q	Ų	Ų	Ü	0	0	0	0	0	1
02:00	å	ı.	ì	0	n n	V	. ,	U	0	0	0	0	0	7
03:00	Ŏ	;	- 1	0	V	V	U A	Ū	0	Q	0	0	0	8
04:00	i	i	- 1	n	1	U A	0	Ų	Ŭ.	0	0	0	0	6
05:00	Ō	ī	ž	ń	ų	4	v	Ų	Ų	Û	0	0	Q	6
06:90	Ŏ	ō	ī	ñ	a	0		V	IJ	Ü	0	0	0	5
07:00	Ŏ	ž	5	ñ	ń	0	0	U	Ü	Q	0	0	0	1
08:80	Ó	Ž	ī	ò	n	4	0	0	ÿ	U	. 0	Ü	0	7
09:00	0	Ô	ā	Ď	ñ	٨	Ŋ	V	U	U	Ü	U	Ü	3
10:00	0	1	Ö	ă	Õ	ň+	ň	0	0	Ü	Ų	V	C .	0
11:00	0	. 0	Ō	ō	Ď	ň	ŏ	ñ	V C	0	V	U	0	I.
Day Totals	1	27	26	†	i	1	+	+	ż	t	*	<u> </u>		<u>0</u>
** ** ***											-	•	•	55
12:00 02/21	0	0	0	0	û	0	0	C	٥	0	ñ	Λ	n	Α.
01:00	0	0	0	0	0	0	Q	Ō	Ŏ	ŏ	ŏ	ñ	Ů	ň
02:00	0	0	0	0	0	0	Ð	0	Ö	ō	Ŏ	Ô	ń	Ů
03:00	0.	0	0	0	0	0	0	0	Ò	Õ	å	Ŏ	Ď	ā
04:30 05:30	Ū	0	Q	0	0	Q	0	0	0	0	ā	ŏ	ŏ	ŏ
05:00	U	U	1	0	Q	0	0	0	9	Q	Ö	Ŏ	ă	ĭ
07:00	ŭ A	2	0	0	0	0	0	0	0	0	0	Ö	à	2
G8:00	v	4	Ü	Ū	0	0	0	0	0	0	0	Ō	Ò	2
09:00	0	1	Ī	0	0	0	0	0	0	Ð	0 '	Ò	Ò	5
10:00	٨	2	Ţ	Q	0	0	C	0	0	G	0	0	C	3
11:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
*****	U	3	v	. 0	1	0	0	0	0	G	0	0	0	4
12:00 pm	0	. 3	1	. 0	1	1	٨							
12:00 pm 01:00	- 0	ī	î	å	i	O T	0	0	0	0	0	0	0	6
02:00	Ŏ	i	Ž	å	ā	Ŏ	0	U	0	0	0	0	0	3
03:00	Ŏ	ž	i	å	1	Ů	Ů	U A	0	0	0	0	0	6
04:00	Ö	3	÷	ð	1	u. 1	0	. U	Ų.	Ü	0	0	Û	4
05:00	0	2	ī	ñ	ō	Ô	ů	0	Ų	Ü	0	0	0	7
36:00	Ó	ì	ī	Õ	ũ	0	٨	G	4	V	9	0	0	3
05:00 06:00 07:00 08:00	0	Ō	ā	i	Ö	ā	٥	n	V A	U	G.	0	0	2
33:00	0	0	Ö	ō	ā	ď	ð	V.	ň	Ω Ω	0	0 .	0	1
J9:30	0	1	ĺ	ů	Õ	Ď	a	U G	V 0	ŭ	0	0 .	0	0
10:00	0	0	Ō	Ŏ	Ō	ō	ů	ň	0	v A	0	V	0	2
11:00	0	· 0	0	0	0 .	Ö	0	ŋ	O O	Û	0 .	0	0	0
Day Totals	t	32	15	i	5	2	- 1	*	<u> </u>	<u>.</u>	V	0	. 0	<u>0</u> 55
					-	-			-	-	•	•		ננ

CASE STATE TRUE O'S DAOR ATSITUKE TRUES ROAD AND STATE TRUES ROAD AND TRUES ROAD

Size Code : 52381) Scart Date: 02/20/2001 Pile I.D. : CRBASTP

93ga . 2

N: 0.72C							NORTHE	1003m . :	DOBRTUGE	תע				Pile I.D
3egin		Cars a :	l Axla		2 Axle] Arle	1 17 4	5 3-1a	5 1-1a-	<u> </u>	6 Arle	5 Arles	6 3710	9343
7.70	3:kes	Tirg	<u> </u>	<u> Buses</u>	<u> 1119</u>	<u>Single</u>	Sing!e	Double	Double i	Double	Multi	Multi	Multi	Tota!
12:00 02/22 01:00	0	ľ	0	Ü	0	0	0	0	Q	Q	0	0	0	0
92:30	ň	ī	0	0	Ų	Ü	0	0	Q	0	0	0	0	ō
33:00	ถ	U	0	0	y	Ü	Ü	0	0	O	0	0	0	1
34:00	ů	1	Ô	0	1 1	4	J a	Ü	0	0	0	Q	0	0
15:00	Õ	ā	ň	1	0	0	Ú	Ü	0	0	0	0	0	1
36:00	ŏ	i	õ	Ů	0	υ Λ	0	Ų	V	U	0	0	0	1
97:00	Ŏ	ō	3	1	n	n	0	0	0	Ü	U	0	0	3
03:00	0	Ō	Ž	ā	Õ	Õ	0	ľ	0	ų n	U	U	0	4
09:00	0	4	0	ō	Ŏ	ō	j	Ů	ň	n	ů	0	Ų	2
10:00	0	1	2	Ò	ō	Ŏ	ŏ	ă	ă	n	n	0	Û	1
11:00	0	1	1	0	Ô	0	0	Ō	ŏ	Õ	Ö	Ö	0	2
12:00 pm	0	0	2	0	0	G	. 0	Ð	0	٥	a	n	A	1
01:00	0	3.	1	0	0	0	. 0	Ó	0	Ŏ	ŏ	å	Ď	i
02:00	. 0	3	2	0	0	0	0	0.	Q	0	Ö	ď	ă	5
03:00 04:00	Ü	6	1	0	0	0	0	O	0.	0	0	Ō	Ŏ	7
05:00	0		1	0	1	0	0	0	0	0	C	0	0	5
06:00	Ů	U T	. 1	Ų O	Û	0	0	0	Ç	0	0	0	C	1
07:00	· å	Õ	,	0	0	U	. U	Q O	0	0	0	0.	0	1
00:60	ō	ŏ	ō	ű	n	0	0	ľ	Ű	U	O .	0	0	2
09:00	Ō	ì	Ö	Č	Ŏ	0	ň	ů	0	0	. 0	Q O	0	0
19:00	G	0	Ö	Ö	Ö	ŏ•	Ò	á	Û	Ú	0	U n	0	I .
11:00	0	0	0	.0	. 0	ŏ	, Ö.	ŏ	õ	Ğ	Ď	n	ß	0
Day Totals	₹.	28	18	2	1	ŧ	2	•	†	1	·	*		49
12:00 02/23	0	0	٥	0	a	٨	0	•	n	Α.				
01:00	0	0	Ō	ŏ	ŏ	ŏ	Ŏ	Ô	ů A	Ů	0	0	U	V
02:00	O.	O	0	0	Ō	Ō	Č	ă	ŏ	Õ	n	0	0	0
03:00	0	0	0	0	0	0	0	Ò	Ŏ	Ŏ	ā	Ŏ	Ŏ	n
04:00 05:00	Ü	1	0	Ç	0	0	0	0	C	Ò	Ö	Č	Õ	i
05:00 05:00	4	1	0	0	0	. 0	Q	0	0	Đ	C	0	Ö	ī
97:00	Λ	,	ī	0	0	0	0	0	0	0	0	0	0	4
98:00	Ď	1	0	Ů	0	0	0	0	0	0	0	0	Q	3
19:00	ŏ	2	2	n	4	0	0	Û	0	0	0	Ç	0	1
10:00	Ŏ	ō	i	Ŏ	Ō	Ö	0	0	Ų	Ü	Ç	0	0	8
11:00	0	0	ō	Ö	. 0	Ŏ	Ö	Ö	0	0	, 0	0	0	1.
.2:00 pm	0	0	0	0	¢	0	0	0	0	a	0	8	0 .	A
11:00	0	1	0	Ŏ	Ö	ŏ	Ŏ	Ď	Č	ů	Ö	C C	ď	v
12:00	0	1	0	Ç	Ō	Ō	Ŏ	ŏ	ŏ	ă	ä	ŏ	η	1
3:00	0	0	0	0	0	0	Ō	Õ	Ö	Ö	Ö	ů	n	Ţ
4:00	0	0	0	0	0	0	0	Ō	Ò	Ö	ō	Ŏ	Ğ	å
5:00 5:00	0 0]	Ū	0	0	0	Q	0	0	Û	Ŏ	Ŏ	Ö	ž
7:00	0	1	I a	Q A	0	0	0	0	0	0	0	0	0	ž
3:00	Ŏ	U T	U A	0	0	0	Ū	0	0	0	0	Q	0	1
9:00	Ŏ	ũ	ľ	0	0	0	V.	0	0	0	0	0	Q	Û
0:00	Č	ō	ì	Ŏ	0	å	V N	Ŋ	Ų A	0	0	0	0	1
1:00		. 0	Ō	0	. 0	Õ	Ŏ	0	n	0	0	0	9	1
ay Totals	Ť	16	9	t	1	+	*	- v -	· t	1	<u> </u>	<u> </u>	<u> </u>	. 0 29 .
												-	•	47

EAUTISTA ROAD S/O TRIPP FLATS ROAD DAY DIRECTIONAL CLASSIFICATION COUNT

Size Code : 523813 Start Date: 02/20/2001

File 1.D. : CRBAST?
Page : 1

							NORTH	BOUND.	TOSETUOS	ND				Pile I.D. Page
Begin Time	gikes	Cars & . Tirs	AXLE	0	yrle	3 Axle	A STIMA	.[]-].	E 1-1-	/ 1 1	5 lrie	6 Arles	á Arle	- 1398
12:00 02/24	3.123	<u>. 1 1 1 5</u> .	<u>. 6075</u>	<u> </u>	Tire	<u> Sradië</u>	Single	Double	Double	Double	Multi	Multi	Multi	Total
01:00	0	0	0	0	Ü	Ū	0	0	0	0	0	0	0	0
32:00	ถ	n	0	Ų	Ų	U	0	0	0	0	0	0	0	ō
53:00	n	ō	0	0	U	U	U	. 0	Q	0	0	0	0	j
00:10	ā	ň	n	U A	V	Ų	V	0	Ç	0	0	0	0	0
05:00	ů	Õ	Ď	0	0	V A	U	Ü	0	0	0	0	0	0
06:00	ŏ	ō	ñ	n	n n	7	0	U	0	0	0	0	Q	. 0
07:00	Ō	Ŏ	ŏ	ñ	n	0	n n	0	Ü	Ū	0	0	0	0
03:00	Ó	ī	ă	Õ	Ų	n	Ď	0	U A	Ü	0	0 -	0	9
39:00	0	2	Ō	ă	ō	Ó	Û	0		Ü	Ü	Ü	Ü	1
19:00	0	1	1	Ŏ	Ŏ	ă	a .	ő	ů	0	. U	U	V	2
11:00	0	4	2	0	Ō	0	Ō	Ö	Õ	ů	Û	0	0	2 5
12:00 pm	Q	2	3	Û	0	0	0	0	٥	a	a	a	n	r
01:00	0	5.	Ō	0	0	0	. 0	Ö	Ö	Ŏ	ă	Õ	ñ	, 5
02:00 03:00	0	2	0	0	0	0	0	0	Q	Ō	Ŏ	Ŏ	Č	2
04:00	· ()	3	1	1	0	Q.	0	0	0.	0	0	Ö	Ŏ	Š
05:00	0	3	2	0	0	0	Ç	0	0	0	0	0	0	5
06:00	Ů	1	2	Ų	Ű	0	0	0	0	0	0	. 0	0	2
07:00	ŏ	ī	a	0	ų A	U A	Ū	Q A	Ç	0	0	0	Q	3
08:00	ŏ	i	Ď	n	ň	4	0	Ü	0 .	0	0	0	0	1
09:00	Ó	õ	Ğ	ŏ	ñ	Ô	n	ų A	Ų A	V	ij.	0	0	1
10:00	0	0	Ō	ō	ŏ	å *	õ	1	n n	Ŋ	Ų A	. ()	0	0.
11:00	. 0	0	0	0	ŏ	ŏ	ō	ŏ	G	Ô	ů	0	V A	U
Day Totals	1	28	11	1	1	•	t	t	+	+	t	1	•	40
12:00 02/25 01:00	0	0	0	0	0	0	0	0	0	0	0	0	٥	a
02:00	ń	ň	0	Ų A	Q	0	0	0	0	0	C	0	Ō.	Ŏ
03:00	Ď.	0	0	Ų A	U .	0	0	0	0	Q	G.	0	Û	0
04:00	õ	Õ	0	0	0	V	U	0	. 0	0	0	0	Û	0
05:00	Ŏ	Ö	Õ	Ú	n	n	ų G	0	0	0	. 0	0	Ō	0
96:00	0	C	Ö	Ğ	a	n	Ô	ů	0	·U	0	0	Q.	0
07:00	0	0	O	Č	Ŏ	ě	Ď	0	ņ	0	0	V	Đ	0
08:00	0	1	3	0	Ō	Ŏ	Ŏ	Õ	å	á	Ů	Ň	V	Ų
09:00	0	1	1	1	0	0	0	Ō	ě	Ğ	Č	ð	n	1
10:00	0	3	1 1	1	0	0	0	0	Ö	Ŏ	Ö.	ŏ	Ŏ	5 .
11:00	0	3	1	0	0	0	0	0	0	0	Ŏ	Õ	Ö	1
12:00 pm 01:00	0	6 3	2	0	0	0	0	0	0	0	0	0	0.	8
02:00	t	3 \$	2	0	I	0	0	0	Û	0	Q	0	0	6
03:00	Ď	3	2	0	0	0	0	0	0	0	0	0	0	6
04:00	ŏ	š	1	0	0	0	Ū	0	0	0	0	0	0	5
05:00	ŏ	i	í	0	V	0	Û	Ų	0	0	0	0	0	9
96:00 97:00	Ö	0	Õ	Ŏ	i	Ů	O	ű ű	ų A	0	0 -	0	0	2
37:00	0	3	0	Õ	ī	ŏ	å	Õ	0	0	V	0	0	Ī
00:60	0	0	0	0	Ō	Ö	ő	Õ	Ď	0	N	0	U	†
19:00	0	0	0	0	Ò	0	Ö	Ŏ	ă	Õ	ů	0	o o	v .
10:00 11:00	0	1	1	0	0	0	G	0	Õ	Ö	Ŏ	ŏ	n	V 7
)ay Totals		36	<u> </u>	<u> </u>	0		0	0	0	<u> </u>	_0	ő	0	8
.el megia	I	36	17	12	3	•	1	+	. 1	1	t	t	t	<u>v</u>

.

NORTHBOUND SOUTHBOUND

Site Code : 513810 -Start Date: 02/20/2001 Pile I.D. : CRBASTP Page : 4

3		C	(7 1-1-					*****	***	VIIV.				*155
Веділ		Cars	£ Z Axle		7 yxie	lyrie	4 Axle	<2 yrrfe	5 Axle	>6 Axle	of Arle	6 Arles	6 Arle	
7136	3 kes		i rond	<u> Buses</u>	<u> 6 Tire</u>	Single	<u>Single</u>	Double	Double	Double	Multi	Multi	Multi	Total
12:00 02/26	0	{) [0	0	0	0	0	٠ 0	0	٥	0	0	
01:00	0	. () (0	0	0	0	0	0	Ŏ	ò	ň	ň	Ď
32:00	0	() 1	0	0	0	0	Ó	Ō	ň	ň	ň	a	· · · · · · · · · · · · · · · · · · ·
03:00	0	() 0	Û	0	Ó	Ŏ	ō	ň	n	٨	ň	0	1
04:00	0	1	L O	Ö	Ŏ	ā	ň	ň	n	1	0	0	0	v
05:00	Ó	I	0	Ò	ō	Ô	Ď	'n	n	0		V	v	į.
06:00	Õ	1	Ò	ň	ā	ñ	'n	0	Α.	0	V	V	V	1
07:00	Ď		1-		Ô	n	'n	0	V	Ų	v	U	Ų	3
00:60	ō	i	ì	Ō	ň	0	۷	U	U	U	Ų	U	U	3
09:00	ň	,		ň		٨	0	U	Ü	U	U	V	Ų	1
10:00	ň	ī	i	Λ	1	0	4	V	U	U	U	0	U	2
11:00	ก	1		0	2	v	V	U	Ų	0	0	0	0	9
11.00	v	•	4	U	2	U	U	U	Ū	U	Q	0	0	8
12:00 pm	0	1	. 3	0	٠.0	٥	ø	٥	a	O	n	٨	٨	1
01:00	0	1	. 1	0	ō	Õ		Ď	Ô	n	ň	'n	ň	"
02:00	0	3	2	Ŏ	i	ŏ	Ŏ	ň	ň	Ď	ň	'n	ň	,
03:00	0	0	0	Ò	ō	ă	ě	ň	ň	ň	ň	0	ň	0
04:00	0	4	0	Ò	ũ	Ď	Ū	ň	۸.	ň	ň	٨		ž
05:00	0	2	1	Ŏ	Ŏ	ō	ň	ň	ň	ň	ň	n.	٨	3
06:00	0	2	3	Ď	ā	Ŏ	ň	ň	ň	ų,	٨	0	ν	j E
07:00	0	1	. 0	Č	ň	ň	Ů	ň	'n	n n	0	Λ.	٨	, 1
08:00	0	1	ž	ă	Õ	ň	Ų	ň		٨		٨	•	,
09:00	0	0	Ō	Ŏ	õ	Ď	ñ	ŭ	ú	0	0	٨	ů) 1
10:00	0	1	Ô	Ŏ	ň	, ,	, ,	0	۸	٨		٨	ν.	, , , , , , , , , , , , , , , , , , ,
11:00	0	Õ	Ŏ	Ŏ	ű	ñ	Ů	V		ν	A		v	Ţ
Day Totals		36	20	t	5	*	*	2	•	*	•	+	•	<u> </u>
_ Totals	2	203	116	6	19	2	·	٥	٨	•	٨	•		344
Percent	.51	58.31	33.3}	1.71	5.43	.5}	.0}	.01	.01	.0}	.01	.0}	.0¥	348

150 7-DAY AVE.

ATTACHMENT 2

HEMET TO ANZA
DISTANCES, SPEEDS, AND TRAVEL TIMES

SR 74

		Distance	Average	Travel Time	Converted
	Route Segments	(Miles)	Speed	in Seconds	Travel Time
3	SR 74 @ San Jacinto St to Fairview Ave	3.8	41.1	333	0:05:33
4	SR 74 @ Fairview Ave to SR 243	14.22	43.1	1,189	0:19:49
5	SR 74 @ SR 243 to SR 371	12.62	51.9	875	0:14:35
6	SR 371 @ SR 74 to Contreras Rd, Anza	5.93	50.1	426	0:07:06
	Totals	36.57	46.7	2,823	0:47:03

SR 79

		Distance	Average	Travel Time	Converted
	Route Segments	(Miles)	Speed	in Seconds	Travel Time
	SR 74 @ State Street to San Jacinto St	0.75	22.5	120	0:02:00
	SR 74 @ SR 79 to State Street	6.24	38.1	590	0:09:50
	SR 79-N @ I-15 to SR 74 (Florida Ave)	16.81	49.1	1,233	0:20:33
	I-15 @ SR 79-S to SR 79-N	3.31	55.7	214	0:03:34
	SR 79 @ Butterfield Stage Rd to I-15	3.86	38.5	361	0:06:01
10	SR 79 @ Sage Rd to Butterfield Stage Rd	10.43	53.2	706	0:11:46
9	SR 79 @ SR 371 to Sage Rd (R-3)	3.64	53.5	245	0:04:05
	SR 371 @ Cary Rd to SR 79, Aguanga	11.3	54.2	750	0:12:30
7	SR 371 @ Contreras Rd to Bautista	1.52	48.9	112	0:01:52
L	Totals	57.86	48.1	4,331	1:12:11

Bautista (Unpaved)

	Route Segments	Distance (Miles)	Average Speed	Travel Time in Seconds	Converted Travel Time
	SR 74 @ San Jacinto St to Fairview Ave	3.8	41.1	333	0:05:33
	Fairview Ave @ Bautista Cyn Rd to SR 74	2.18	42.0	187	0:03:07
	Bautista Cyn Rd @ Camp to Fairview Ave	8.2	34.5	856	0:14:16
	Bautista Cyn Rd @ end of pavement to Camp	8.12	23.9	1,222	0:20:22
	Cary/Bautista Rd @ SR 371 to end of pavement	3.22	45.1	257	0:04:17
_7	SR 371 @ Contreras Rd to Bautista	1.52	48.9	112	0:01:52
	Totals	27.04	32.8	2,967	0:49:27

Bautista (Paved)

	Deute Control		Average		Converted
	Route Segments	(Miles)	_Speed	in Seconds	Travel Time
	SR 74 @ San Jacinto St to Fairview Ave	3.8	41.1	333	0:05:33
	Fairview Ave @ Bautista Cyn Rd to SR 74	2.18	42.0	187	0:03:07
17	Bautista Cyn Rd @ Camp to Fairview Ave	8.2	34.5	856	0:14:16
	Bautista Cyn Rd @ end of pavement to Camp	8.12	33.0	886	0:14:46
15	Cary/Bautista Rd @ SR 371 to end of pavement	3.22	45.1	257 ⁻	0:04:17
_7	SR 371 @ Contreras Rd to Bautista	1.52	48.9	112	0:01:52
<u> </u>	Totals	27.04	37.0	2,631	0:43:51

Sage Rd

	Route Segments	Distance (Miles)	Average Speed		Converted
					Travel Time
1.4	SR 74 @ State Street to San Jacinto St	0.75	22.5	120	0:02:00
14	State St/Sage Rd @ SR 74 to SR 79	23.35	38.8	2,168	0:36:08
9	SR 79 @ SR 371 to Sage Rd (R-3)	3.64	53.5	• • • • • • • • • • • • • • • • • • • •	
8	SR 371 @ Cary Rd to SR 79, Aguanga	11.3	54.2	750	0:12:30
_7	SR 371 @ Contreras Rd to Bautista	1.52	48.9	112	0:01:52
<u></u>	Totals	40.56	43.0	3,395	0:56:35

ATTACHMENT 3

SR-371/SR-74 AND SR-74/SR-243 VOLUME DATA

Counts Unlimited Inc. 25424 Jaclyn Avenue Moreno Valley , CA 92557 909-247-6716

COUNTY OF RIVERSIDE N/S: STATE ROUTE 371 EW: STATE ROUTE 74 WEATHER: SUNNY

File Name : RC37174S Site Code : 00252211 Start Date : 05/19/2001 Page No : 1

Group	⊃s F	Just od-	SATI	JRDAY	CC	UN	T
STATE RC	Ū	E 74			STA	TE	R

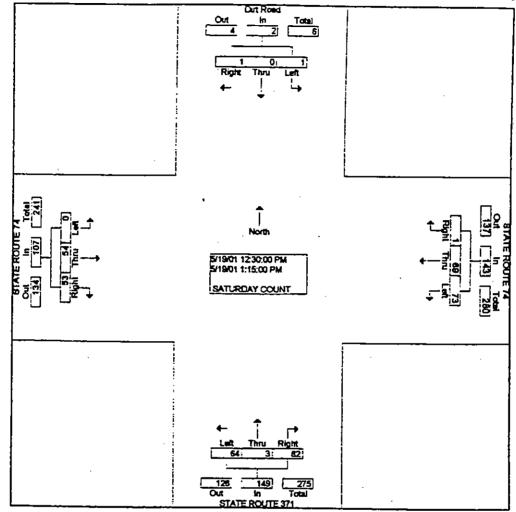
<u>_</u>			Road hbound	į	,		OUTE 7	4	S		ROUTE 37	71		_	ROUTE 7	4	
Start Time	Left	Thru	Right	App. Total	Left	Thro	Right	App. Total	Left	Thru	Right	App. ; Total	Left	Thru	Right	App.	int. Total
Factor	1.0	1.0	1.0	i	1.0	1.0 :	1.0		1.0 i	1.0	1.0	Ī	1.0	1.0	1.0		
11:45 AM	0	Ö	1	1:	20	18	2	40	20	1	26	47 :	0	9	23	32 :	120
Total	0	0	1	1;	20	18	2	40 [20	1	26	47	0	9	23	32	120
12:00 PM	0	0	0	0 ;	16	12	0	28	13	3	13	29	0	10	12	22	79
12:15 PM	0	0	1	1	19	13	0	32	18	0	13	31 !	0	7	18	25	89
12:30 PM	0	0	0	0	19	12	1	32	18	1	27	46	0	10	21	31	109
12:45 PM	1	0	1	2	24	22	0	46	17	1	15	33	0	10	16	26	107
Total	1	0	2	3 j	78	59	1	138	66	5	68	139	0	37	67	104	384
01:00 PM	0	0	0	o ¦	12	14	, 0	26	11	1	24	36	0	12	6	18 ;	80
01:15 PM	0	0	0	0	18	21	Ò	39	18	0	16	34	Ö	22	10	32	105
01:30 PM	0	0	0	0 {	13	12	0	25	22	0	22	44	Ô	10	8	18	87
01:45 PM	0	1	0	1 l	13	7	1	21	11	- 1	13	25	ō	6	9	15	62
Total	0	1	0	1	56	54	1	111	62	2	75	139	0	50	33	83	334
Grand Total	1	1	3	5]	154	131	4.	289	148	8	169	325	. 0	96	123	219	838
Appreh %	20.0	20.0	60.0	1	53.3	45.3	1.4	1	45.5	2.5	52.0	ļ	0.0	43.8	56.2		
Total %	1.0	0.1	0.4	0.6	18.4	15.6	0.5	34.5	17.7	1.0	20.2	38.8	0.0	11.5	14.7	26.1	

	!		Road hbound		Ş		ROUTE 7 tbound	4	S		ROUTE 3	71	! 5		ROUTE 7	74	
Start Time	Left	Thru	Right	App. Total		Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From	111:45	AM. to 0	1:45 PM	- Peak I	of i				'				<u>`</u>		<u>-</u>		
Intersection	12:30 1			•	-				I				i		•		i
Volume	1	0	1	2	73	69	1	143	64	3	82	149	ا ه	54	53	107	401
Percent	50.0	0.0	50.0	_	51.0	48.3	0.7		43.0	2.0	55.0	147	0.0	50.5	49.5		
12:30 Volume	0	0	0	0	19	12	1	32	18	1	27	46	0	10	21	31	109
Peak Factor									1				į				0.920
High Int.	12:45	M			12:45 P	M			12:30 P	M			01:15	M			0.520
Volume Peak Factor	1	0	1	0.250	24	22	.0	46 0.777	18	1	27	46 0.810	0	22	10	32 0.836	

Counts Unlimited Inc. 25424 Jaclyn Avenue Moreno Valley , CA 92557 909-247-6716

COUNTY OF RIVERSIDE N/S: STATE ROUTE 371 EW: STATE ROUTE 74 WEATHER: SUNNY

File Name: RC37174S Site Code : 00252211 Start Date : 05/19/2001 Page No : 2

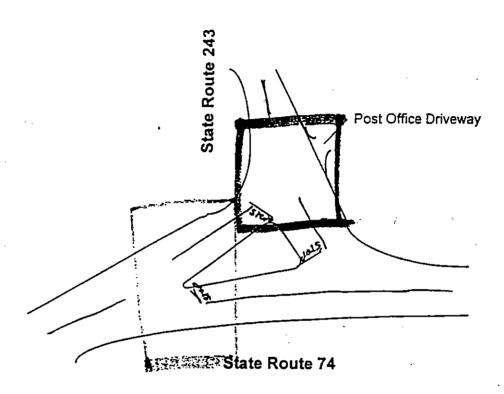


Peak Hour Fr	rom 11:	45 AM	l to 01:	45 PM -	- Peak	1 of 1											
	12:00 P				12:30 E				11:45 A	м			11:45 A	M		. 1	1
Volume	1	0	2	3	73	69	1	143	69	5	79	153	11.75	36	74	110	l
Percent	33.3	0.0	66,7		51.0	48,3	0.7		45.1	3.3	51.6	.,,	0.0	32.7	67.3	- 110	l
High Int.	12:45 P	M			12:45 F	M			11:45 A	M			11:45 A		0,2	1	l
Volume	1	0	1	-2	24	22	0	46	20	1	26	47	,	•	23	32	ĺ
Peak Factor				0.375				0.777		_		0.814	Ĭ	•		0.859	

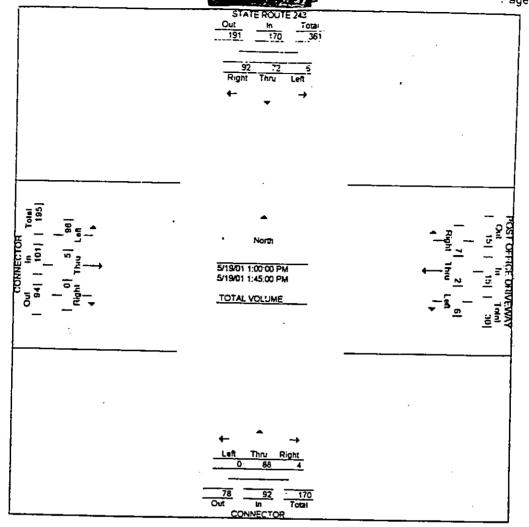
						_		VIE 332'	Iny Co
Mile- post	Description	Peak Hour	Pk. Mo.	ADT Annual	Mile- post	Description	Peak Hour	Pk. Mo.	Annua
ROUT	E 330. Route 30 in San Ben Running Springs	nardino	to Route	18 in	11.18	Victorville, Jct. Rte. 18; Palmdale Road		***********	
	DISTRICT 8	a					1,300	15,900	14,300
	San Bernardino County	ני		-	15.71	Adelanto, George Air Force Base Road	1,000	15,900	14,300
R28.70	•				17.78	Adelanto, El Mirage	1.050	16,000	14.000
	bollading, set. Rtt. 30 alimin	1,300	11,100	10,000		Road/Valley Drive		10,700	
		1,450	12,200	11,000			_		9,200
44.12	Running Springs, Jet. Rte. 18	······································			45.95	Beechers Corners, Jet. Rte. 58	590	7,900	6,600
ROUT	E 371. Route 79 in Aguanga	to Rou	te 74 Fas	t of			430	6,200	4.800
L	Anza	10 1.00	, 4 203	. 0,	72.77	Trona Road	400	5,800	4,450
	DISTRICT 8].	· •		73.52	San Bernardino-Kern County Line	370	4,450	3,700
	Riverside County								
56.40	Aguanga, Jel Rie. 79	····				DISTRICT 6]		
60.23	Wilson Valley Road	390	4,500	4,200	0.00	San Bernardino-Kern County Line		····································	·····
				4 400			370	4,450	3,700
67 66	Com the d	420	4,650	4,400	R1.15	Redrock Randsburg Road			·
67.66	Cary Road			***************************************		•	350	4,150	3,450
71.31	Anza, Contreras Road	450	5,000	4,700	R1.45 =1.47	Milepost Equation			
		580	6,400	6,000	R15.00	China Laba Dand	370	4,250	3.500
77.15	Jcl. Rie. 74; Anza, East	280	(3,150)	2,950	K13.00	China Lake Road	230	2,900	2,400
					200 10		200	2,800	2,300
ROUTE	380. Route 280 in San Brui South San Francisco	no to Ro	oute 101 i	in	R23.48	Jct. Rtc. 178	370	4,150	3,550
	DISTRICT 4				R25.59 =26.88	Milepost Equation			
-	San Mateo County				R29.64	Jct. Rte. 14; Homestead North Junction	480	4,150	2,950
T4.70	San Brano, Jct. Rte. 280; Begin Freeway	···		****			000,1	7,900	5,800
•		9,200	130,000	123,000	R36.82	Kern-Inyo County Line		·	
5.47	San Bruno, Jcl. Rte. 82					DISTRICT 9			
		10,700	150,000	142,000	R0.00	Kern-Inyo County Line			
6.37	South San Francisco, Jet. Rte. 101		······				770	6,900	5,300
ROUTE	395. Route 15 in Hesperia t Line Via Bishop; Neva	o the N	evada St	nte Oregon	R17.87	Coso Junction Safety Roadside Rest Area			
	State Line Via Alturas				34.67	Olancha, Jet. Rie. 190 East	1.050	7,300	5,300
	DISTRICT 8						1,000	5,700	5,300
	San Bernardino County				55.83	Lone Pine, Jct. Rte. 136 Southeast _	1,200	5,900	5,500
R3.98	Hesperia, Jct. Rte. 15		·····				1,150	11,700	6,100
R4.75	Milepost Equation				57.67	Lone Pine, Whitney Portal Road		11,700	
=4.51 11.18		1,200	14,800	13,500	J. 101	work tills, withinty Portal Road	1,050	9,800	5,500
11.18	Victorville, Jet. Rte. 18; Palmdale Road				73.41	Independence, Market Street	-	•	·
					71		······		







File Name CR24374S Site Code 00252223 Start Date 05/19/2001 Page No 2



Peak Hour F	rom 12	:00 PM	1 to 01:	45 PM -	Peak	1 of 1										
By Approach	01:00 F	M			12:00 E				12:30 P							
Volume	6	72	92	170					12:30 5				12:00 P	M		
Percent	3.5			170		ð	12	22	0	84	9	93	119	6	0	125
		42.4	54.I		9.1	36.4	54.5		0.0	90.3	9.7		95.2	4.8	0.0	
High Int.	01:45 P	M			12:15 P	М			12:30 P						0.0	
Vojume	5	71	26	52			-	_	12.30 F	147			12:15 P	м		
Peak Factor	-	-1			U	-	3	7	0	27	5	32	42	3	٥	45
I CAN FREIOT	•			0.817				0.786				0.727			•	0.694

COUNTY OF RIVERSIDE N/S STATE ROUTE 243 E/W STATE ROUTE 74 WEATHER SUNNY 25424 Jadyn Avenue Moreno Valley , CA 92557 909-247-6716

建筑等

_				
Groups	Printed-	TOTAL	VOLUME	

						(Broups Pr	inted- TO	TAL VO	LUME					•	-	
	s		ROUTE 2 hbound	43 	POS		E DRIVE	WAY	·		ECTOR	-			ECTOR		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	i.ett	ומנה	Right	Λpp. Total	Lett	Thru	Right	App. Total	lat. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0	1041	1000
12:00 PM	1	lo	17	34	0	3			U	12	1	13	36	1	0	37	89
12:15 PM	1	19	20	40	9	2	5	7	0	13	i	19	42	3	ō	45	111
12:30 PM	0	14	28	42	2	1	2	5	0	3.7	5	32	13	ō	ő	13	92
12:45 PM	0	_ 10	18	28	0	2	3	5	0	17		19	28	Š	Õ	30	32 32
Total	2	59	83	1+4	2	8	12	22	0	74	9	83	119	6	0	125	3-1
01:00 PM	0	21	17	38	ı	0	0	1	0	21	0	21	23	•	0	25	85
01:15 PM	1	14	. 27	42	I	2	3	6	Ō	19	2	21	24	2	ŏ	26	95
01:30 PM	0	16	22	38	2	0	2	4	Ö	24	2	26	30	0	Ō	30	98
01:45 PM	5	21	26	52	2	0	2	4	Ō	24	ō	24	19	ì	Ö	20	100
Total	6	72	92	170	6	2	7	15	0	88	4	92	96	3	0	101	378
Grand Total	8	131	175	314	8	10	19'	37	0	162	13	175	215	11	0	226	752
Apprch *•	2.5	4Í.7	55.7		21.6	27.0	51.4		0.0	92.6	7. 1	•••	95.1	1.9	0.0		
Total °•	1.1	17.4	23.3	41.8	1.1	1.3	2.5	4.9	0.0	21.5	1.7	23.3	28.6	1.5	0.0	30.1	

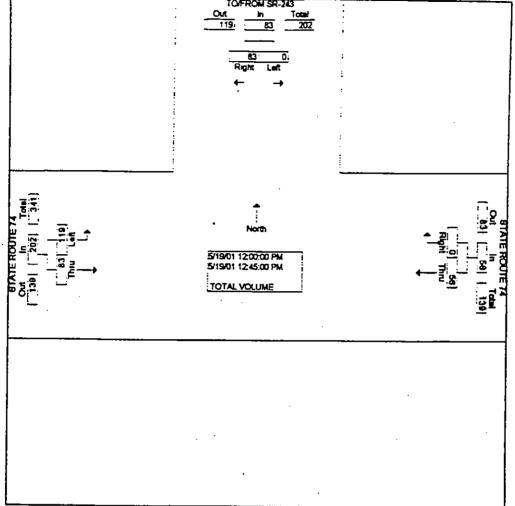
			ROUTE 2 hbound	43	POS		E DRIV	EWAY			NECTOR				ECTOR	•	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From	n 12:00 l	M to 0	1:45 PM	- Peak I o	f I		·										10,22
Intersection																	•
Volume	6	72	92	170	6	2	7	1.5	0	88	4	92	96	5	0	101	378
Percent	3.\$	42.4	54.1		40.0	13.3	46.7		0.0	95.7	4.3		95.0	5.0	0.0	101	٠.٥
01:45	•	21	26	62	_	_	_	_	_								
Volume	,	41	20	52	2	0	2	4	0	24	0	24	19	t	0	20	100
Peak Factor																	0.945
	01:45 F	M		•	01:15 P	M			01:30 F	M			01:30 P	м			0.543
Volume	5	21	26	52	1	2	3	6	0	24	2	26	30		0	30	
Peak Factor				0.817	-	-	•	0.625	•		• .	0.885	30	U	v	0.842	

25424 Jactyn Avenue Moreno Valley , CA 92557 909-247-6716

COUNTY OF RIVERSIDE N/S: STATE ROUTE 243 E/W: STATE ROUTE 74 WEATHER: SUNNY

PEAK HOUR TOTALS !!

File Name : cr24374sw Site Code : 00252223 Start Date : 05/19/2001 Page No : 2



Peak Hour Fr	rom 12:0	O PN	A to 01:	45 PM -	- Peak	1 of 1	•									
By Approach					12:45				12:00 PN	A		:	12:00 P	м		
Volume	0	0	92	92	0	64	0	64	0	0	0	ο .	119	83	0	202
Percent	0.0	0.0	100.0	. ;	0.0	100.0	0.0		-	-	•	i	58.9	41.1	0.0	
	01:15 PM				01:15	PM			-			j	12:00 P	M		i
Volume	0	0	27	27	6	17	0	17	-	•	•	- ;	36	23	0	59
Peak Factor				0.852	}			0.941				- i				0.856

COUNTY OF RIVERSIDE N/S: STATE ROUTE 243 E/W: STATE ROUTE 74 WEATHER: SUNNY

25424 Jaclyn Avenue Moreno Valley , CA 92557 909-247-6716

Groups Printed-TOTAL VOLUME

File Name : cr24374sw Site Code : 00252223 Start Date : 05/19/2001

Page No : 1

	1		M SR-24 hbound				ROUTE 7: t bound	4	,		M SR-240 hbound	3	,		ROUTE 7	74	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0	~	1.0	1.0	1.0		
12:00 PM	0	0	17	17	0	11	0	11 :	0	0	0	0	36	23	0	59	87
12:15 PM	0	0	20	20	0	15	0	15	0	0	0	0	42	10	0	52	87
12:30 PM	0	0	28	28	0	16	0	16	0	0	0	0 !	13	30	0	43	87
12:45 PM	0	0	18	18	0	14	0 .	14	0	0	0	0 :	28	20	0	48	80
Total	0	0	83	83	0	56	0	56 ,	0	0	0	0 .	119	83	0	202	341
01:00 PM	0	0	17	17	0	16	0	16	0	0	0	0 ;	23	10	0	33	66
01:15 PM	0	0	27	27 .	0	17	0	17	0	0	0	0 .	24	14	0	38	82
01:30 PM	0	0	22	22 :	0	17	0	17	0	0	0	0	30	15	0	45	84
01:45 PM	0	0	26	26	0	13	0	13	0	0	0	o i	19	11	0	30	69
Total	0	0	92	92	0	63	0	63	0	0	0	0	96	50	0	146 :	301
Grand Total	0	0	175	175	0	119	o.	119 !	0	0	0	o !	215	133	0	348 !	642
Appreh %	0.0	0.0	100.0	•	0.0	100.0	0.0	ł	0.0	0.0	0.0	- 1	61.8	38.2	0.0	į	
Total %	0.0	0.0	27.3	27.3 .	0.0	18.5	0.0	18.5	0.0	0.0	0.0	0.0	33.5	20.7	0.0	54.2	

			M SR-24 hbound	13 :	•		ROUTE 7	4			M SR-24 abound	3	\$		ROUTE 7	4	
Start Time				T Ó LETI	Left	Thru	Right	App. Total		Thrú	Right	App. Total	Left	Thru	Right	App. Total	int. Total
Peak Hour From	12:00	PM to 0	1:45 PM	- Peak 1 of	[]					•			•				_
Intersection	12:00	PM							i								•
Volume	0	0	83	83	0	56	0	56	. 0	0	0	0	119	83	0	202	341
Percent	0.0	0.0	100.0		0.0	100.0	0.0		0.0	0.0	0.0	,	58.9	41.1	0.0		
12:30	0	0	28	20							_				_		
Volume	v	U	28	28	0	16	U	16	0	0	0	0	13	30	0	43	87
Peak Factor								j								:	0.980
High Int.	12:30	PM		1	1 2:3 0]	PM			11:45:0	MA 0		•	12:00 P	M		;	
Volume	0	. 0	28	28	0	16	0	16	0	0	0.	0 !	36	23	0	59	
Peak Factor				0.741				0.875			-	1		_	_	0.856	

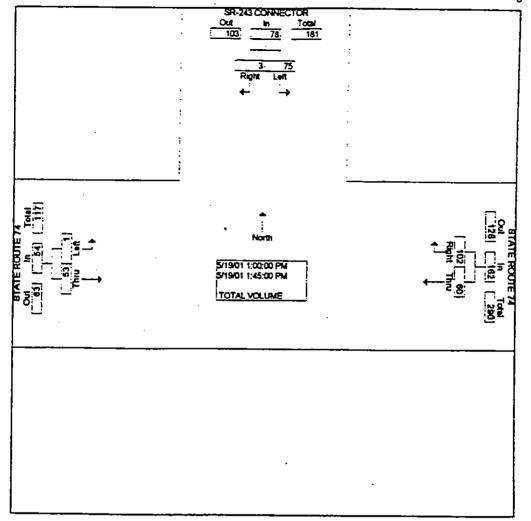
COUNTY OF RIVERSIDE N/S: STATE ROUTE 243 E/W: STATE ROUTE 74 WEATHER: SUNNY

25424 Jaclyn Avenue Moreno Valley , CA 92557 909-247-5716

PEAK HOUR TOTAL

File Name : cr24374se Site Code : 00252223 Start Date : 05/19/2001

Page No : 2



Peak Hour Fr	rom 12:	00 PM	to 01:	45 PM -	Peak	1 of 1										
By Approach					01:00 F				12:00 PM	á			! 12:00 P	м		i
Volume	75	0	3	78	. 0	60	102	162	0	0	0	O	8	72	0	80
Percent	96.2	0.0	3.8	•	0.0	37.0	63.0		-	•	-		10.0	90.0	0.0	- ·
~	01:45 P	M		}	01:30 F	M .		- 1	-				12:30 P	M		
Volume	25	0	0	25	0	15	29	44	-	-	-	.	4	26	0	30
Peak Factor				0.780				0.920				-				0.667

25424 Jaclyn Avenue Moreno Valley , CA 92557 909-247-6716

COUNTY OF RIVERSIDE N/S: STATE ROUTE 243 E/W: STATE ROUTE 74 WEATHER: SUNNY

File Name : cr24374se Site Code : 00252223 Start Date : 05/19/2001

Page No : 1

						c	Sroups Pri	nted- TO	TAL VO	LUME					. age		
	SR		ONNECT	OR .	S		ROUTE 7-	4	SR		ONNECT	OR .	Ş		ROUTE 7	4	
Start Time	Left	Thru	Right	App. Total	Left	Theru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	int. Total
Factor	1.0	1.0	1.0	·	1.0	0.1	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
12:00 PM	11	0	1	12 .	0	9	17	26	0	0	0	0	3	18	0	21	59
12:15 PM	14	0	1	15:	0	12	21	33	0	0	0	0 :	0	10	0	10	58
12:30 PM	18	0	1	19 .	0	15	31	46	0	0	0	0 -	4	26	0	30	95
12:45 PM	10	0	0	10_	0	14	_ 15	29	0	0	0	0	1	18	0	19	58
Total	53	0	3	56	0	50	84	134	0	0	0	0	8	72	0	80	270
01:00 PM	21	0	1	22	0	17	22	39	0	0	0	0 ;	1	11	0	12	73
01:15 PM	13	0	1	14	0	15	22	37	0	0	0	. 0 !	0	14	0	14	65
01:30 PM	16	0	1	17	0	15	29	44	. 0	0	0	0 !	0	16	0	16	77
01:45 PM	25	0	0	25 ;	. 0	13	29	42	0	0	0	0	0	. 12	0	12	79
Total	75	0	3	78 ;	0	60	102	162	0	0	0	0	1	53	0	54	294
Grand Total	128	0	6	134	0	110	186	296	0	0	0	0 !	9	. 125	0	134	564
Apprch %	95.5	0.0	4.5	- 1	0.0	37.2	62.8	•	0.0	0.0	0.0	1	6.7	93.3	0.0	•	
Total %	22.7	0.0	1.1	23.8	0.0	19.5	33.0	52.5 ¹	0.0	0.0	0.0	0.0	1.6	22.2	0.0	23.8	

	SR-		ONNECT	OR			ROUTE 7	4	SR		ONNECTO	OR	S		ROUTE 74	i i	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Theu	Right	App. Total	Left	Thru	Right	App. :	int. Totai
Peak Hour Fron	12:00 PI	M to 0	:45 PM	- Peak 1	of l								•				
Intersection	01:00 PI	M .			i							į.	ļ				
Volume	75	0	3	78	0	60	102	162 -	0	0	0	0	1	53	0	54	294
Percent	96.2	0.0	3.8		0.0	37.0	63.0		0.0	0.0	0.0	į	1.9	98.1	0.0		
01:45 Volume	25	0	0	25	0	13	29	42	0	0	0	0	0	12	0	12	79
Peak Factor												1				•	0.930
High Int.	01:45 PI	M			01:30 F	M		•	11:45:0	0 AM			01:30 P	M			-
Volume	25	. 0	0	25	0	15	29	44 .	0	0	0	0 !	0	16	0	16	
Peak Factor				0.780				0.920								0.844	

ATTACHMENT 4

POPULATION DATA

SCAG 2001RTP Baseline Projections **Riverside County**

Sub-Regions

County	Subregion Name	City	1997	2002	2010	2015	2020	2025	1997	2005
			Pop.	Pop.	Pop.	Pop.	Pop.	Pop.	FIR	HHd
Riverside WRCOG	WRCOG	Banning	24,575	31,424	34,811	38,141	42,660	47,328	8,547	10,351
Riverside	WRCOG	Beaumont	10,569	18,115	26,279	34,307	45,202	56,450	3,756	5,927
Riverside WRCOG	WRCOG	Calimesa	7,476	8,663	13,112	17,486	23,423	29,554	3,035	3,525
Riverside WRCOG	WRCOG	Canyon Lake	8,802	10,668	10,675	10,682	10,692	10,702		3,707
Riverside WRCOG	WRCOG	Corona	107,922	134,127	138,896	143,586	149,948	156,522		39,465
Riverside WRCOG	WRCOG	Hemet	55,297	68,189	80,904	93,408	110,377	127,899	23,324	29.171
Riverside WRCOG	WRCOG	Lake Elsinore	27,220	40,550	49,338	57,981	69,709	81,820	8,103	12,313
Riverside WRCOG		Moreno Valley	135,905	155,419	169,459	183,264	201,998	221,343	38,529	43.020
Riverside WRCOG		Murrieta	38,978	59,812	67,601	75,258	85,651	96,382	12,514	19,005
Riverside WRCOG		Norco	25,062	29,311	29,579		30,199	30,568		7,003
Riverside WRCOG		Perris	30,696	37,724	52,985	67,991	88,352	109,377	_	10,162
Riverside WRCOG	WRCOG	Riverside	247,989	292,272	302,507	312,571	326,226	340,328	79,396	88,373
Riverside WRCOG	WRCOG	San Jacinto	24,541	41,536	46,983	52,340	59,609	67,115	8,001	13,425
Riverside WRCOG	WRCOG	Temecula	45,162	74,189	76,704	19,178	82,535	96,000	13,631	21.785
Riverside WRCOG	WRCOG	Unincorporated County	299,939	414,995	490,941	565,617	666,953	771,595	100,083	132,742
Total	`		1,090,133	1,416,994	1,590,774	1,761,652	1,993,534	2,232,983	349,078	439,974
Riverside CVAG	CVAG	Blythe	20,886	22,208	22,385	22,403	22,433	22,527	4.141	5,121
Riverside CVAG	CVAG	Cathedral City	35,741	41,953	44.990	47 978	52,032	56,218	12,154	13,288
Riverside	CVAG	Coachella	21,606	22,996	25,053	27,076	29,822	32,657	4,558	5,932
Riverside CVAG	CVAG	Desert Hot Springs	15,183	17,714	18,611	19,492	20,690	21,927	5,466	5,807
Riverside CVAG		Indian Wells	3,228	3,844	4,004	-	4,371	4,590	1,442	1,608
Kiverside CVAG		Indio	43,300	52,140	55,537	58,878	63,413	68,094	12,206	13,527
Riverside CVAG	CVAG	La Quinta	19,831	24,452	30,369	36,189	44,084	52,238	6,214	7.750
Riverside CVAG	CVAG	Palm Desert	34,663	41,131	43,536	45,902	49,111	52,426	15,190	16.708
Riverside CVAG	CVAG	Palm Springs	42,264	50,464	51,191	51,906	52,876	53,878	19,226	21,109
Riverside CVAG	CVAG	Rancho Mirage	10,874	13,060	14,920	16,752	19,236	21,802	5,122	6,306
Riverside CVAG	CVAG	Unincorporated County	81,582	108,942	129,705	152,249	182,833	214,350	28,033	33,210
Total			329,138	396,904	440,301	482,984	540,901	600,707	113,762	130.376
				-						

1. Figures are for baseline RTP model calculations.
2. Only 2025 figures are adopted by the RC for the RTP.
3. 2005 Reflect current RHINA figures.
H:Vrograms/Gi36ala/detabase files/SCAG RTP01 SED proj

POPULATION GROWTH BY COUNTY FOR CALIFORNIA 1990-2000

COUNTY	1990	2000	DELTA	% DELTA
1 San Benito	36,697	53,234	16,537	45.1
2 Placeř	172,796	248,399	75,603	43.8
3 Madera	88,090	123,109	35,019	39.8
4 Tuolomne	40,456	54,501	14,045	34.7
5 Riverside	1,170,413	1,545,387	374,974	32.0
6 Imperial	109,303	142,361	33,058	30.2
7 Mono	9,956	-	2,897	29.1
8 Kings	101,469	129,461	27,992	27.6
9 Calaveras	31,998	40,554	8,556	26.7
10 El Dorado	125,995	156,299	30,304	.24.1
11 Lassen	27,598	33,828	6,230	22.6
12 Sutter	64,415	78,930	14,515	22.5
13 Kem	544,981	661,645	116,664	21.4
14 Stanislaus	370,522	446,997	76,475	20.6
15 San Bernardino	1,418,380	1,709,434	291,054	20.5
16 Mariposa	14,302	17,130	2,828	19.8
17 Fresno	667,490	799,407	131,917	19.8
18 Yolo	141,210	168,660	27,450	19.4
19 Sonoma	388,222	458,614	70,392	18.1
20 Contra Costa	803,372	948,816	145,444	18.1
21 Orange	2,410,668	2,846,289	435,621	18.1
22 Merced	178,403	210,554	32,151	18.0
23 Tulare	311,921	368,021	56,100	18.0
24 Sacramento	1,041,219	1,223,499	182,280	17.5
25 San Joaquin	480,628	563,598	82,970	17.3
26 Del Norte	23,460	27,507	4,047	17.3
27 Nevada	78,510	92,033	13,523	17.2
28 Amador	30,039	35,100	5,061 55,074	16.8 16.2
29 Solano	339,471	394,542	55,071 2,529	15.5
30 Colusa	16,275	18,804 58,309	7,678	15.2
31 Lake	50,631	245,681	29,519	13.6
32 Sam Luis Obispo	217,162 1,275,702	1,443,741	167,039	13.1
33 Alarmeda - 34 Monterrey	355,660	401,762	46,102	13:0
35 Tehama	49,625	56,039	6,414	12.9
36 San Diego	2,498,016	2,813,833	315,817	12.6
37 Ventura	669,016	753,197	84,181	12.6
38 Santa Clara	1,497,577	1,682,585	185,008	12.4
39 Napa	110,765	124,279	13,514	12.2
40 Butte	182,120	203,171	21,051	11.6
41 Santa Cruz	229,734	255,602	25,868	11.3
42 Shasta	147,036	163,256	16,220	11.0
43 San Mateo	649,623	707,161	57,538	8.9
44 Alpinè	1,113	1,208	95	8.5
45 Santa Barbara	369,608	399,347	29,739	8.0
46 Marin	230,096	247,289	17,193	7.5
47 Los Ángeles	8,863,052	9,519,338	656,286	7.4
48 Mendocino	80,345	86,265	5,920	7.4
49 San Francisco	723,959	776,733 3,555	52,774 237	7.3 7.1
50 Sierra	3,318		237 1,655	
51 Glenn	24,798	26,453 126,518	7,400	6.2
52 Humboldt	119,118	126,518 20,824	1,085	
53 Plumas	19,739	60,219	1,991	3.4
54 Yuba	58,228 43,351	44,301	950	2.2
55 Siskiyou	43,351	13,022	-41	-0.3
56 Trinity	13,063	17,945	-336	-1.8
57 Inyo	18,281	÷	-229	-2.4
58 Modes	9,678	3,443	•23	-2.4

Appendix F Conceptual Landscape and Revegetation Plan



Submitted to:

Federal Highway Administration (FHWA)
Central Federal Lands Highway Division (CFLHD)
Contract No. DTFH68-01-D-00005
Task Order Number DTFH68-02-T-00002

February 2003

Submitted by:



Conceptual Landscape and Revegetation Plan for BAUTISTA CANYON ROAD Riverside County, California

Submitted to:

Federal Highway Administration (FHWA)
Central Federal Lands Highway Division (CFLHD)
Contract No. DTFH68-01-D-00005
Task Order Number DTFH68-02-T-00002

February 2003

Submitted by:



TABLE OF CONTENTS

EXE	CUTT	VE SUM	MARY	ES-1
1.0	INT	RODUC	TION	1-1
	1.1	Purpos	se, Scope and Project Descrption	1-1
	1.2	Antici	pated Impact	1-1
	1.3	-	Drganization	
2.0	MET	HODS.		2-1
22.0	2.1		rch of Existing Revegetation Plans	
	2.2		Transects and Vegetation Analysis	
	2.3		opment of Revegetation Strategies	
3.0			F RESEARCH AND FIELD STUDIES	
3.0	3.1		sis of Contacts on Revegetation	
	3.2		egetation Study	
	3.2	3.2.1	Riparian Area #1	
		3.2.2	Riparian Area #2	
		3.2.3	Riparian Area #3	
4.0	REV	EGETA	TION METHODS	4-1
2.0	4.1		reparation	
	~~~	4.1.1	Topsoil Salvage and Storage	
		4.1.2	Soil Decompaction and Contouring.	
		4.1.3	Cut and Fill Slopes	
		4.1.4	Pre-planting Weed Control	4-2
	4.2	Seed a	and Other Plant Material	
		4.2.1	Seed and Plant Material Collection	
		4.2.2	Seed Storage and Mixing	4-4
		4.2.3	Container Plant Material, Cuttings, and Transplants	
		4.2.4	Plant Palettes	
		4.2.5	Seed Application	4-7
		4.2.6	Installation of Plantings	
		4.2.7	Erosion Control	•
	4.3	_	tion	
	4.4		Control	
	4.5		toring	4-18
		4.5.1	Monitoring Tasks and Schedule	
		4.5.2	Performance Criteria	
		4.5.4	Reporting Requirements	
5.0	IMI		NTATION STEPS	
	5.1	Prior	to Construction	5-1
		5.1.1	Detailed Plans and Specifications	5-1
		5.1.2	Collection of Seeds and Plant Materials	5-1

6.0	5.2 REF	5.2.1 5.2.2 5.2.3	Construction of Irrigation Systems  Identification of Reference Sites  Road Construction  On-Site Analysis, Including Soil Testing  Plan Implementation  Monitoring	5-1 5-1 5-1 5-2 5-2
			APPENDICES	
A B		tact For Data S	heets	
			LIST OF FIGURES	
1-1			cation Map	
2-1			Transect Locations	
4-1			Application Areas	
4-2			rinting	
4-3	Ins	stallatio	n of Fiber Logs	4-16
			LIST OF TABLES	
3-1	Pe	rcent Co	over of Line Intercept Transects	3-2
3-2	Pe	rcent Re	elative Abundance from Belt Transects	3-3
4-1	Pre	elimina	ry Chaparral Seed Mix	<b>4-</b> 5
4-2	Pre	elimina	ry Big Sagebrush Seed Mix	<b>4-</b> 5
4-3	Pre	elimina	ry Riparian Forest/Scrub Seed Mix1	4-5
4-4	Pla	antings i	for Riparian Areas	4-7
4-5	Re	vegetati	ion Area by Plant Community	4-7
4-6	Ge	neral R	evegetation Monitoring Schedule	4-19

### **EXECUTIVE SUMMARY**

The Federal Highway Administration (FHWA), Central Federal Lands Highway Division (CFLHD), together with the San Bernardino National Forest (SBNF), California Department of Transportation (Caltrans) and the Riverside County Transportation Department are proposing the reconstruction and paving of a 13.2 km (8.2 mile) portion of California Forest Highway 224. The reconstruction of the roadway requires considerable grading involving substantial cut and fill and straightening many of the sharp curves on the existing roadway.

This Conceptual Landscape and Revegetation Plan provides general mitigation concepts for impacts associated with habitat loss, erosion, and aesthetics due to roadway reconstruction. These mitigation measures will be included in the Environmental Impact Statement (EIS)/ Environmental Impact Report (EIR) being prepared for the project. Further refinement of the measures will be made during the design phase of the project if the project is approved.

Three alternative alignments, the 40 kilometer per hour (km/h) (~25 mph), the 55 km/h (~35 mph) alignment and the combination 55-40-55 km/h (35-25-35 mph) alignments are being considered. The combination alignment is the alternative this plan is based on because it encompasses portions of each of the other alternatives. Each alternative includes a two-span bridge over Bautista Creek.

Any alternative that reconstructs the route will result in the loss of chaparral vegetation, big sagebrush scrub, and some riparian woodlands and marsh. Habitat of federally listed wildlife species including the arroyo toad and the southwestern willow flycatcher may also be impacted. This habitat loss includes loss of formerly designated Critical Habitat for the arroyo toad in the northern portion of the alignment.

As part of the method to develop revegetation strategies appropriate for the project site, field studies were conducted to assess the existing vegetation. All areas to be revegetated occur within one of the following eight native plant communities: bigberry manzanita chaparral, chamise chaparral, coastal sage-chaparral scrub, southern mixed chaparral, redshank chaparral, big sagebrush scrub, southern cottonwood-willow riparian forest, and southern willow scrub.

General revegetation methods were outlined, including site preparation, seed and plant materials, monitoring and maintenance, irrigation, and development of performance criteria. Revegetation strategies were developed for the chaparral, big sage brush scrub, and riparian communities. It is proposed that use of container plants or cuttings requiring irrigation be limited to revegetation of riparian areas and other sensitive areas. Many of the cut slopes in the central portion of the alignment will be too steep to successfully revegetate. Methods such as rock staining will be used were appropriate to lessen any aesthetic impacts.

This page intentionally left blank.

### 1.0 INTRODUCTION

This section provides the following:

- The purpose, scope, and a brief project description of the project
- Anticipated biological impact
- A description of the organization of this plan.

### 1.1 PURPOSE, SCOPE AND PROJECT DESCRPTION

The Federal Highway Administration (FHWA), Central Federal Lands Highway Division (CFLHD), together with the SBNF, California Department of Transportation (Caltrans) and the Riverside County Transportation Department are proposing the reconstruction and paving of the 13.2 km (8.2 mile) portion of FH 224 (See Figure 1-1 for project location). The reconstruction of the roadway requires considerable grading involving substantial cut and fill and straightening many of the sharp curves on the existing roadway. Three alternative alignments, the 40 kilometer per hour (km/h) (25 mile per hour [mph]) alignment, the 55 km/h (35 mph) alignment, and the combination 40-55-40 km/h (35-25-35 mph) alignments are being considered. The combination alignment is the alternative this plan is based on because it encompasses portions of each of the other alternatives.

This Conceptual Landscape and Revegetation Plan provides general mitigation concepts for impacts associated with habitat loss, erosion, and aesthetics due to roadway reconstruction. These mitigation measures will be included in the Bautista Canyon Road Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) being prepared for the project. Further refinement of the measures will be made during the design phase of the project if the project is approved.

The Conceptual Landscape and Revegetation Plan is limited to the cut and fill slopes created by the project, segments of the existing roadway that will be abandoned, and temporary roads required to relocate utilities. Any additional off-site revegetation is not within the scope of this plan.

### 1.2 ANTICIPATED IMPACT

The proposed grading will result in the loss of chaparral, big sagebrush scrub, and riparian woodlands and marsh plant communities. Habitat of listed wildlife species including the arroyo toad and the southwestern willow flycatcher will also be impacted. This habitat loss includes loss of formerly designated Critical Habitat for the arroyo toad in the northern portion of the alignment.

Cut and fill slopes will also create visual impacts. Revegetation and other measures such as rock staining of steep slopes are intended to reduce the visual impacts in the areas of high visual sensitivity.

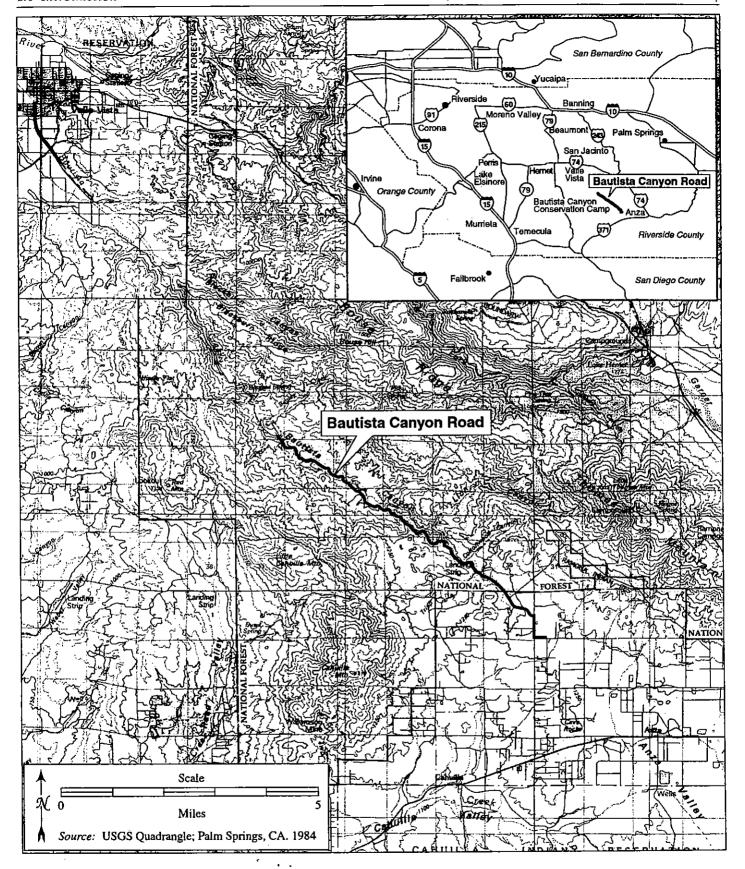


Figure 1-1. Project Location Map

### 1.3 PLAN ORGANIZATION

This Conceptual Landscape and Revegetation Plan consists of seven sections and two technical appendices. Section 2 describes the methods and assumptions used in developing the plan. Section 3 describes the results of the research including the review of previous revegetation plans and the vegetation analysis performed on plant communities representative of areas to be revegetated. Section 4 describes specific revegetation methods for seed application and installation of container plantings, monitoring requirements and timing, performance criteria, and reporting requirements. Revegetation areas are delineated on preliminary project plans provided under separate cover. The steps needed to implement this plan are presented in Section 5. Section 6 lists references cited in the plan. The technical appendix contains supporting and reference materials that support the results and conclusions.

This page intentionally left blank.

### 2.0 METHODS

This section describes the methods used to develop the Conceptual Landscape and Revegetation Plan for Bautista Canyon Road in the following sections:

- · Research of Existing Revegetation Plans
- Plant Transects and Vegetation Analysis
- Development of Revegetation Strategies

### 2.1 RESEARCH OF EXISTING REVEGETATION PLANS

A number of agencies, revegetation contractors, and other persons knowledgeable about revegetation of chaparral in Southern California were contacted by SAIC biologists. The purpose of these contacts was to determine the current methods being employed and to determine the overall success of revegetation efforts conducted in the area. Organizations contacted include the following:

- San Bernardino National Forest
- California Department of Transportation
- University of California at Riverside
- Nature's Image
- S&S Seeds
- California Department of Food and Agriculture
- Habitat West
- Center for Natural Lands Management

Information for each contact is provided in Appendix A.

### 2.2 PLANT TRANSECTS AND VEGETATION ANALYSIS

As part of the method to develop re-vegetation strategies appropriate for the project site, field studies were conducted to assess the existing vegetation. As discussed in more detail in Chapter 4, the studies provide data for cover and density of native perennial plants. Species presence and abundance were important to document the existing vegetation, but were not particularly important in determining seed mixes for the project. All areas to be revegetated occur within one of the following eight native plant communities: bigberry manzanita chaparral, chamise chaparral, coastal sage-chaparral scrub, southern mixed chaparral, redshank chaparral, big sagebrush scrub, southern cottonwood-willow riparian forest, and southern willow scrub. In order to quantify the composition of these communities, two approaches were used, one for the upland communities and an alternate for the riparian communities.

SAIC biologists surveyed the project corridor (proposed roadway + 50 meter (162.5 foot) buffer on either side of the proposed alternatives) searching for six patches of vegetation that

adequately represented each of the six upland community types. Upland communities include bigberry manzanita chaparral, chamise chaparral, coastal sage-chaparral scrub, southern mixed chaparral, redshank chaparral, and big sagebrush scrub. At each of the six chosen locations (Figure 2-1, Sampling Transect Locations), two vegetation sampling methods were applied: line-intercept and belt-transect. Using 50-meter (162.5-foot) transect lengths and 2-meter widths for the belt-transect, data on species presence, species cover, and open ground were recorded. Due to the time of year of the vegetation analysis coupled with the low rainfall in the winter and spring of 2001-2002, it was not possible to accurately assess annual species cover and density. The perennial vegetation is much more important in the development of revegetation plans since annual vegetation seeds will be contained in the duff (crushed native vegetation) as well as enter the project areas from undisturbed areas. Photographs taken at each transect also document the vegetation within each sampled community. Transect locations were marked in the field using rebar stakes with brightly painted PVC sleeves. Data were collected and subsequently entered into a database and analyzed.

The second approach, used in riparian communities (southern cottonwood-willow riparian forest and southern willow scrub), consisted of a more qualitative assessment based on field observations. Biologists surveyed each location where riparian restoration may occur and recorded the species composition, an estimate of species density, and the general structure of the adjacent riparian community. The general topography, apparent hydrology patterns, and overall conditions of the area proposed for revegetation were also recorded. A total of six locations were identified and assessed using this method. Photographs taken at each riparian revegetation area also document the vegetation within the vicinity. This method, as opposed to the transect sampling methods described above, was used to enable the development of a more precise, site-specific restoration methodology for smaller and more sensitive habitat types such as riparian communities.

### 2.3 DEVELOPMENT OF REVEGETATION STRATEGIES

Revegetation strategies, preliminary seed mixes, and planting palettes (for container and cutting stock) were developed based on species naturally occurring in the vicinity of the project. Species were selected for seed mix based on the following factors:

- Presence and abundance in the project area. This was determined by using project data (AMEC 2002) and from site visits.
- Collectability of the seed for seeded species (some species are difficult to collect, adding
  uncertainty and increased cost). This was determined by personal experience and by
  contact with a company that regularly performs seed collection in the area.
- Likelihood of germination for seeded species. Species requiring pretreatment to facilitate germination were not used. Germination rates and treatments were determined by consulting literature and experts (Emery 1988, Everett 1957, Keeley 1991, and Berlin 2002).
- Opportunity to recreate or enhance habitat for rare, threatened, and endangered animal species by providing plants for food and for cover of selected species including the Quino checkerspot butterfly.

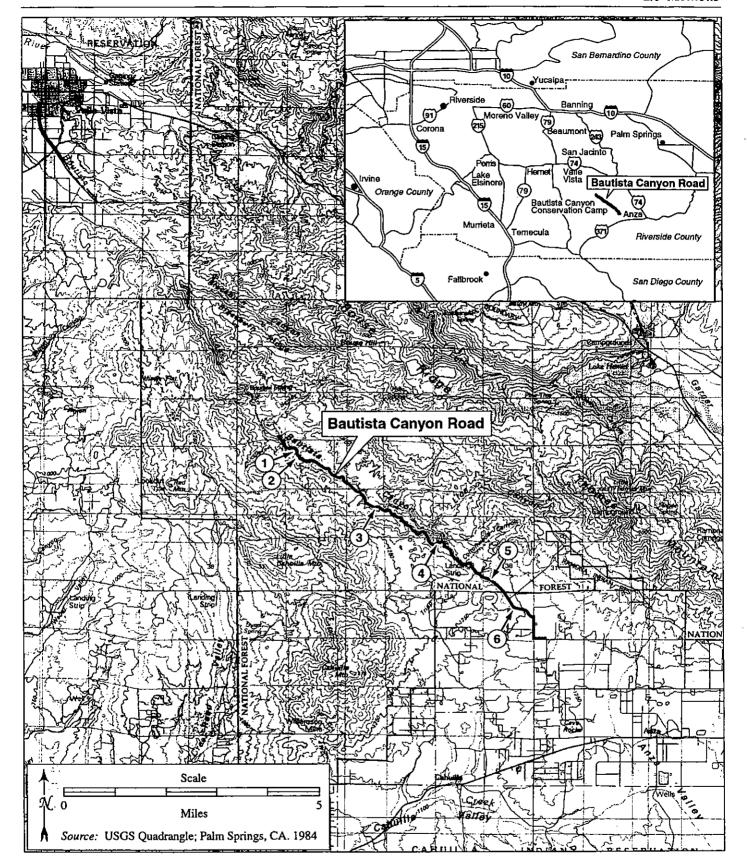


Figure 2-1. Transect Locations

• Diversity of plant types and rooting types. The goal is to plant sufficient types of species to provide cover given a variety of microhabitats present in the project area and possible annual weather regimes. It is anticipated that the cover and species diversity will vary by location even when the same seed mix is used due to microhabitat differences. Some species are expected to be more successful in some areas while other species will be more successful in other areas.

Plants were selected for revegetation that are generally early successional species that are expected to grow rapidly and provide native cover and erosion control. Longer-lived species more typical of mature plant communities (e.g., manzanitas and scrub oaks) would be expected to colonize from adjacent areas. Riparian areas are being treated differently due their limited extent on the project corridor and their importance as sensitive species habitat. In riparian areas, a combination of seeding with early successional species and planting species typical of the mature community were developed for the revegetation strategy. Some species included in the seed mix for riparian areas are more typical of uplands. These species were included to provide cover and erosion control while cuttings, transplants, and container plantings become established.

### 3.0 RESULTS OF RESEARCH AND FIELD STUDIES

This chapter presents the results of the research and field studies in the following sections:

- · Analysis of Contacts on Revegetation
- Site Vegetation Study

### 3.1 ANALYSIS OF CONTACTS ON REVEGETATION

The results of the interview and other contacts with organizations and individuals concerning previous revegetation efforts are provided in detail in Appendix A. A general consensus was found that the use of slope imprinters for planting of seeds is feasible for any slope that a bulldozer can traverse. Imprinting seems to be as good or better than hydroseeding and may be more cost-effective. Imprinting of the seeds also seemed to result in better survival than hydroseeding if winter rains were not sufficient. Recent results have indicated that seeds may still grow the second year after planting if rainfall is not sufficient the first year if imprinting is used. The general consensus of those contacted indicated that use of species associated with early succession of the plants was desirable and would be more successful.

### 3.2 SITE VEGETATION STUDY

The results of the upland vegetation communities sampling are provided below in Table 3-1, Percent Cover of Line Intercept Transects and Table 3-2, Percent Relative Abundance from Belt Transects. In general, the namesake of each of the communities was the dominant species of that particular community with a few co-dominates and/or associate species common on the area. Vegetation cover ranged from 48.5 percent within the big sagebrush scrub to 90.5 percent within the chamise chaparral. Within all the sampled chaparral communities combined, the dominant species were chamise (Adenostoma fasciculatum), California buckwheat (Eriogonum fasciculatum), red shank (Adenostoma sparsifolium), buck brush (Ceanothus cuneatus), and bigberry manzanita (Arctostaphylos glauca). These five species account for 74 percent of the total vegetative cover within the sampled chaparral communities.

Results of the sampling conducted within the southern mixed chaparral community were more homogeneous than might be expected. However, these results are appropriate based on the scale of the vegetation mapping effort relative to the sampling size. Essentially, the southern mixed chaparral community is composed of a series of patches of many sub-communities. Standard sampling techniques of this community are likely to produce results indicative of the sub-community occurring at the sampling location. Although the results of the southern mixed chaparral sample were more indicative of chamise chaparral, an understanding of the vegetation mapping scale and a qualitative assessment of the project site indicate that this community is composed of a network of patches of the other four sampled chaparral communities (bigberry manzanita chaparral, chamise chaparral, coastal sage-chaparral scrub, and redshank chaparral) and scrub oak chaparral. Scrub oak chaparral was not sampled because it occupies very little area within the restoration area. However, it is likely to occur in patches throughout the mixed chaparral.

Table 3-1. Percent Cover of Line Intercept Transects

	Chamise Chaparral	Coastal Sage/ Chaparral Scrub	Bigberry Manzanita Chaparral	Mixed Chaparral	Red Shank Chaparral	Big Sagebrush Scrub
Adenostoma fasciculatum (chamise)	83.8	34.3	14.6	. 74.6	2.0	0
Artemisia tridentata (big sagebrush)	0	0	0	0	0.4	44.5
Adenostoma sparsifolium (redshank)	0	0	0	0	19.1	0
Eriogonum fasciculatum (California buckwheat)	3.9	15.9	. 0	0	11.5	3.8
Ceanothus cuneatus (buck brush)	0	0	Ó	0	35.5	0
Arctostaphylos glauca (bigberry manzanita)	0	0	68.9	0	0	0
Eriodictyon crassifolium (woolly yerba santa)	0	0	1.4	0	0	0
Rhus trilobata (skunk brush)	0	0	0	0	10.1	0
Opuntia basilaris (beavertail)	0	0	0.2	0	0	0
Salvia mellifera (black sage)	2.8	19.0	0	0	0	0
Yucca whipplei (our Lord's candle)	0	9.5	0	0.4	0	0
Trichostema lanatum (woolly bluecurls)	0	0	0	0.3	0	0
Penstemon centranthifolius (scarlet bugler)	0	0	0	0	0	0.2
Tetradymia comosa (cotton-thorn)	0	0	0	0	1.8	0
Melica imperfecta (Melic)	0	0.2	0	0	0	0
Bare Ground	7.1	19.4	8.1	20.0	15.2	43.8
Litter	2.4	1.7	6.8	4.7	4.4	7.7

Table 3-2. Percent Relative Abundance from Belt Transects

	Chamise Chaparral	Coastal Sage/ Chaparral Scrub	Bigberry Manzanita Chaparral	Mixed Chaparral	Red Shank Chaparral	Big Sagebrush Scrub
Adenostoma fasciculatum (chamise)	65	24	38	. 70	9	0
Artemisia tridentata (big sagebrush)	0	0	0	0	1	72
Eriogonum fasciculatum (California buckwheat)	9	31	0	0	9	6
Ceanothus cuneatus (buck brush)	0	0	0	0 (1 plant)	51	0
Arctostaphylos glauca (bigberry manzanita)	0	0	36	2	0	0
Eriodictyon crassifolium (woolly yerba santa)	0	0	14	0	0	0 -
Rhus trilobata (skunk brush)	0	0	0	0	22	0
Opuntia basilaris (beavertail)	2	0	12	0	0	0
Salvia mellifera (black sage)	25	14	0	0	0	0
Yucca whipplei (our Lord's candle)	0	31	0	0	0	0
Trichostema lanatum (woolly bluecurls)	0	0	0	23	0	0
Penstemon centranthifolius (scarlet bugler)	0	0	0	0	0	13
Tetradymia comosa (cotton-thorn)	0	0	0	0	8	0
Gutierrezia californica (California matchweed)	0	0	0	5	0	0
Lotus scoparius (deerweed)	0	0	0	0 (1 plant)	0	0
Lessingia filaginifolia (Corethrogyne)	0	0	. 0	0	0	4
Croton californicus (California croton)	0	0	0	0	0	5

### 3.2.1 Riparian Area #1

Riparian Area #1 is located approximately 3.2 km (2 miles) east of the Bautista Conservation Camp, where Bautista Canyon Road crosses Bautista Creek (Station 302+750). The area to be restored is currently a portion of the existing dirt roadway that crosses the creek at grade (no culvert). The proposed realignment of the roadway will cross the creek over a proposed bridge approximately 0.8 km (0.5 mile) upstream. The existing dirt roadway crossing and associated disturbed shoulders will be abandoned and available for restoration following construction of the new roadway.

The streambed at this location ranges from 1 to 2 meters (3 to 6 feet) wide with flood benches stretching another 6 to 12 meters (20 to 30 feet) on either side. The creek bed is composed of a series of pool and riffle complexes with medium to large boulders strewn throughout. At the time of the riparian habitat survey, early August, no surface water was present within the creek bed. Surface flows in this portion of the creek are probably only present during the winter and spring months. Riparian habitat immediately adjacent to the restoration area consists of an open cottonwood-willow riparian forest with a sparse understory dominated by annual grasses and shrubs. The canopy is comprised of scattered cottonwoods (Populus fremontii) with a few Western sycamore (Platanus racemosa) and coast live oaks (Quercus agrifolia) on the periphery. Associated understory species include mugwort (Artemisia douglasiana), mule fat (Baccharis salicifolia), poison oak (Toxicodendron diversilobum), and sandbar willow (Salix exigua). Annual grasses dominate the stream channel, including rabbit's foot grass (Polypogon sp.), oats (Avena sp.), and brome (Bromus sp.). The flood benches on both sides of the creek are occupied by a sparse assemblage of upland scrub species such as California buckwheat (Eriogonum fasciculatum), pinebush (Ericameria pinifolia), white sage (Salvia apiana), and big sagebrush (Artemisia tridentata) under a broken cottonwood canopy. Part of the bench is dominated by rush (Juncus sp.), which is an important basket-weaving plant for Native Americans. A dozen or so non-native tamarisk plants (Tamarix sp.) were also noted within adjacent riparian habitat both up and down stream from the existing road crossing.

### 3.2.2 Riparian Area #2

Riparian Area #2 is located near Station 303+850, where Bautista Canyon Road crosses an ephemeral tributary drainage to Bautista Creek. The creek passes under the existing road in an easterly direction through a large culvert and onward towards Bautista Creek. The proposed realignment of the roadway will occur in nearly the same location but the proposed roadway will occupy an additional 15 meters (50 feet) to the west. Following construction of the roadway, riparian revegetation opportunities may exist at the west end of the newly extended culvert.

The width of the tributary creek ranges from 0.3 to 0.6 meters (1 to 2 feet) on either side of the culvert. Before entering the culvert on the west side of the road, water is detained in a small debris basin until spilling over the basin and into the culvert. On the east side of the culvert, the drainage drops abruptly for approximately 4.5 meters (15 feet) then resumes a more moderate slope towards Bautista Creek. Riparian vegetation at this location is limited to a small patch of mule fat scrub and mugwort, a few scattered cottonwoods, and a single coast live oak tree within the basin. Upland species scattered throughout the creek bed and basin periphery

include yerba santa (Eriodictyon crassifolium), big sagebrush, California buckwheat, deer weed (Lotus scoparius), and pinebush. Habitat approximately 100 feet further down stream is more consistent with a cottonwood-sycamore riparian forest.

### 3.2.3 Riparian Area #3

Riparian Area #3 occurs along a stretch of roadway where Bautista Creek runs parallel and immediately adjacent (Station 307,350 to 308+750). The riparian canopy along most of this portion of the creek stretches to the northern edge of the roadway and occasionally overlaps it. The proposed realignment of the roadway will occasionally occur on the existing dirt roadway but more frequently is located further upslope to the south and away from the creek. Consequently, many segments of the existing roadway will be abandoned and available for restoration following construction of the new roadway.

Riparian habitat adjacent to the portions of roadway to be abandoned consists of mature southern willow scrub and mixed willow riparian woodland. A series of seeps along the creek and the slow grade through the area account for the year-round saturated soils and lush riparian habitat within this area. The canopy often stretches over the Bautista Road with widths ranging from approximately 30 to 60 meters (100 to 200 hundred feet). Dominant species of the canopy are red willow (Salix laevigata) and arroyo willow (Salix lasiolepis) with occasional western sycamores. Understory vegetation is dense with dominants such as sandbar willow, tarragon (Artemisia dracunculus), virgin's bower (Clematis ligusticifolia), California rose (Rosa californica), and honeysuckle. Dominant understory species located within the creek bed include rushes (Juncus sp.), mugwort, stinging nettle (Urtica dioica), watercress (Rorippa nasturtium-aquaticum), and duckweed (Lemna sp.). While riparian habitat lines the northern side of the road, upland chaparral communities occupy the slopes to the south. The historical location of the transition from upland to riparian is likely to have occurred in the location of the existing roadway in several areas.

This page intentionally left blank.

#### 4.0 REVEGETATION METHODS

This section provides the methods proposed for revegetation along Bautista Canyon Road.

#### 4.1 SITE PREPARATION

This section addresses topsoil salvage and storage, soil decompaction and contouring, cut and fill slopes, and pre-planting weed control.

#### 4.1.1 Topsoil Salvage and Storage

Topsoil and crushed native vegetation (duff) will be salvaged and stored on site. Prior to stripping, the vegetation will be crushed by driving heavy machinery over it. Crushing the vegetation will be done as necessary to break it into a duff that can be collected with the topsoil. Ideally the duff material will be no larger than 3 to 6 inches in size. Topsoil and duff will be collected and stored for reapplication following final grading in areas to be seeded. Topsoil and duff will be stored in disturbed areas away from the majority of construction activity, and storage locations will be recommended by the project biologist¹.

Topsoil/duff piles will be arranged in rows not typically exceeding 6 feet in height to preserve soil microfauna and seed viability. Topsoil and duff should be labeled to avoid confusing it with subsoil and will be kept in separate piles for each area of the road realignment. If topsoil is stored over the winter or spring and weeds are present, weeds should be cut to reduce seed set and to lessen the need for weed control later in the project.

Every effort will be made to replace topsoil in the same general area and habitat from which it was removed. Salvaging and replacing topsoil and duff is a commonly used procedure to aid in native revegetation efforts. Purposes for using this method include the following:

- The topsoil will contain important nutrients, soil microorganisms, and medium providing a more favorable environment for establishing new plants.
- The topsoil and duff will contain some seeds that may germinate following replacement
  of topsoil. Some seeds, especially from plants that grow in a fire-prone habitat, remain
  viable in the soil for many years. Those seeds may germinate soon after replacement of
  the topsoil or may remain dormant and then sprout following fire.
- The duff will contain fiber that will make the soils less erosion-prone and reduce the loss
  of seeds, nutrients, and moisture.
- Nutrients stored in plant material will become available to establishing plants as decomposition of the organic matter progresses over many years.
- Reusing duff material will eliminate disposal issues associated with clearing and grubbing.

¹ The project biologist should be identified at the outset of the program. He/she should be familiar with the local environment and revegetation techniques.

## 4.1.2 Soil Decompaction and Contouring.

In areas were the existing road will be abandoned, the existing soil surface will be ripped to uncompact the soil. Abandoned roadways areas will be obliterated and either restored to the approximate original ground contour or shaped to blend with the existing terrain. Topsoil and duff salvaged, as described above, will be placed over the fill and the site will be seeded.

#### 4.1.3 Cut and Fill Slopes

Fill Slopes. Fill slopes that are not steeper than 1:1.5 will be smoothed and topsoil reapplied as feasible. The surface will be seeded with a seed mix. Fill slopes that are steeper than 1:1.5 may not be revegetated because revegetation is less likely to be successful and revegetation equipment cannot be used on very steep slopes. However, steeper (greater than 1:1.5) slopes may be hydroseeded. Steep fill slopes may be contained through the use of wireframe (gabion) retaining walls using native rock material.

Cut Slopes. Treatment of cut slopes will depend on steepness, composition, and size. This information will not be available until the geology report is complete. However, cut slopes that are gentle enough (less than 1:1.5) should have the topsoil replaced and be seeded. Areas that are very steep will probably not be seeded. In highly visible areas, options such as rock staining will be explored to reduce visual impact of recently exposed rock faces.

#### 4.1.4 Pre-planting Weed Control

Prior to seeding and installation of cuttings and container plantings, perennial non-native invasive exotic species will be removed. Removal methods will be as described in section 4.4, Weed Control. Weeds that are particularly problematic (e.g. tamarisk) will be targeted.

#### 4.2 SEED AND OTHER PLANT MATERIAL

This section describes considerations for seed collection, timing, storage, and application. Methods, timing, and storage of other native plant material such as cuttings and container plants are also presented. It is anticipated that all seed for the project will be obtained, tested, stored, mixed, bagged, and delivered to the revegetation contractor. Propagation materials (other than seed) would be collected and container plantings. Seeding and installation of the container plantings would be conducted.

Inoculation of container plants and of seed mixes with mycorrhizal fungi is recommended. Mycorrhizal fungi are abundant in undisturbed natural areas and form symbiotic relationships with plants. The fungi serve the plant similarly to the plants own roots (to which the fungi are attached) but transporting water and minerals to the plant. In turn, the plant provides the fungi with sugars. The relationship aides in survival of plants, especially in situations where the ground has been disturbed or where topsoil has been stored in excess of several weeks to several months.

#### 4.2.1 Seed and Plant Material Collection.

Ideally, seed and other plant materials collected or originating from the project area are considered superior to commercial sources for the following reasons:

- The integrity of local gene pools is preserved.
- Adaptation to site-specific conditions is ensured.
- Inadvertent introduction of inappropriate species or pathogens is avoided.

It is therefore recommended that all seed and plant materials of native species to be used for revegetation will be collected from the local area. If a specified seed is not available, other similar species may be substituted as discussed in section 4.2.4. Any substitutions should be collected from the same local area. Appropriate areas for seed collection within the collection limits should be defined in the field, taking into account the following considerations:

- Ecological similarity to the area to be reseeded
- Proximity to the project site
- Land ownership
- Accessibility
- Abundance and availability of target species
- Ensuring of genetic diversity of source material by collecting seeds from a diverse sample of the parent plants within the collection area
- Avoiding collecting Quino checkerspot butterfly (Euphydryas editha quino) host plant seed within 1 mile of known occupied habitat

However, commercial seed sources may be used for more common native species, particularly where the original source location is from upland areas in the vicinity of the San Jacinto Mountains. Species that may be available commercially include California sagebrush (*Artemisia californica*), deerweed (*Lotus scoparius*), and black sage (*Salvia mellifera*). Dwarf plantain (*Plantago erecta*) may also be available commercially. However, the dwarf plantain is a Quino checkerspot butterfly host plant, and therefore it may be more desirable to collect it locally. Any use of commercial seed sources would be subject to approval of SBNF.

If local native plants are used for revegetation, commercial seed from the project vicinity may not be available. In general, custom collection from the project area by a qualified seed collection contractor would be required. It is possible to grow plants that are produced from local material and then collect seed from those grown plants. However, growing plants for seed collection is not expected to be an economically feasible option.

Seed collection should be initiated 2 years prior to timing of seed application. This should allow sufficient time to collect the seed but not have a reduction in viability of seed. Because some species do not produce seed well during some years, it is possible that some of the seed will not be available in the year it is needed. For this reason, the seed mix may be adjusted slightly, if necessary (see section 4.2.4 for limitations in seed mix adjustment).

All seed collected, grown, or purchased for the project should be tested to determine if it meets the minimum standards established in the industry. Specifically, the minimum pure live seeds per pound must be met. If the contractor is unable to meet those standards, the amount of seed will be adjusted upward to result in the same overall number of pure live seeds by species.

#### 4.2.2 Seed Storage and Mixing

Seed will be stored to ensure maximum viability by the seed collection contractor including refrigeration (if necessary).

Seed should be mixed in quantities as preferred by the seed application contractor (probably 0.5 acre lots). All bagged seed should be labeled with the size of area it will cover and amount of each species listed. The source location of all native species would be provided on the label (e.g., Hemet/Anza area).

#### 4.2.3 Container Plant Material, Cuttings, and Transplants

For container material, a nursery will be selected that has specific knowledge and experience in native plant propagation, specifically of species used or species similar to those used in this project. Plants that can readily be started from cuttings (such as willows and cottonwoods) will be most likely started from cuttings. Other species, particularly rushes and mugwort, may be started more easily from plugs. Plants should be grown in facilities with an environment similar to the project area and inoculated with mycorrhizal fungi. For example, growing plants in a cool, coastal environment would not be appropriate. The nursery selected to grow container material should be selected and under contract a minimum of 2 years in advance of scheduled planting to ensure that plants are available when needed.

For plantings directly from cuttings (willows only), material will be collected from the immediate project area on the same day as planting. Generally, cuttings will be collected near to the areas to be planted to ensure species are adapted to site-specific conditions and for convenience. More information on cutting installation is provided in section 4.2.6.

For direct transplants such as mugwort and mulefat (*Artemisia douglasiana* and *Baccharis salicifolia*), plants will be collected from the immediate vicinity where they will be planted. If feasible, plants from the cleared construction corridor will be used preferentially to those in adjacent, undisturbed areas. Care will be taken in transplanting plants from adjacent, undisturbed areas to avoid degrading the habitat. If possible, only a portion of individual plants will be removed, allowing the remaining portions to continue growing. See section 4.2.6 for instructions for collection and planting transplanted species.

#### 4.2.4 Plant Palettes

For the purpose of revegetation seeding and planting, plant communities are divided into the following categories: chaparral, big sagebrush scrub, and riparian forest/scrub. Most plantings in riparian areas will be from containers, transplants, and cuttings. The species to be included in seed mixes for each plant community are in Tables 4-1 through 4-3. The plant palettes may be adjusted to include moré plants of ethnobotanical importance in consultation with local Native Americans. The area disturbed for roadway construction (including cut and fill slopes),

# Table 4-1. Preliminary Chaparral Seed Mix

Scientific Name (Common Name)
Adenostoma fasciculatum (Chamise)
Adenostoma sparsifolium (Redshank)
Antirrhinum couterianum1 (Coulter's snapdragon)
Artemisia californica (California sagebrush)
Cordylanthus rigidus1 (Bird's beak)
Eriogonum fasciculatum (California buckwheat)
Eriophyllum confertiflorum (Golden yarrow)
Lotus scoparius (Deerweed)
Malacothamnus fasciculatus (Chaparral mallow)
Melica imperfecta (Melic)
Plantago erecta ¹ (Dwarf plantain)
Salvia mellifera (Black sage)
Yucca whipplei (Our Lord's Candle)
1. Annual species included in seed mix because it is a primary host plant for Quino checkerspot butterfly. Use of plants that serve as a host to the Quino checkerspot butterfly in close proximity to the roadway will be reexamined based on consultation with the USFWS and the Biological Opinion.

# Table 4-2. Preliminary Big Sagebrush Seed Mix

Scientific Name (Common Name)
Artemisia tridentata (Big sagebrush)
Castilleja exserta1 (Purple owl's clover)
Cordylanthus rigidus1 (Bird's beak)
Croton californica (California croton)
Encelia farinosa (Brittle bush)
Eriogonum fasciculatum (California buckwheat)
Lessingia filaginifolia (Corethrogyne)
<ol> <li>Annual species included in seed mix because it is a primary host plant for Quino checkerspot butterfly. Use of plants that serve as a host to the Quino checkerspot butterfly in close proximity to the roadway will be reexamined based on consultation with the USFWS and the Biological Opinion.</li> </ol>

# Table 4-3. Preliminary Riparian Forest/Scrub Seed Mix1

Scientific Name (Common Name)
Antirrhinum couterianum ² (Coulter's snapdragon)
Baccharis salicifolia (Mulefat)
Leymus condensatus (Giant wild rye)
Cordylanthus rigidus ² (Bird's beak)
Eriogonum fasciculatum
Ericameria pinifolia
Lotus scoparius
Artemisia tridentata
<ol> <li>Most planting in riparian areas will be from containers, transplants, and cuttings.</li> <li>Annual species included in seed mix because it is a primary host plant for Quino checkerspot butterfly. 'Use of plants that serve as a host to the Quino checkerspot butterfly in close proximity to the roadway will be reexamined based on consultation with the USFWS and the Biological Opinion.</li> </ol>

except paved areas and areas with slopes steeper than 1:1.5, will be seeded and some areas will have container plantings, transplants, and cuttings as well. Slopes grater than 1:1.5 may be hydroseeded if feasible. Plant communities were grouped for the following reasons:

- An early successional seed mix is prescribed for each plant community. Similar plant community types would have similar assemblages of successional species because the distinguishing species (e.g., scrub oaks and manzanita) would not generally be present. The distinguishing species were not generally included in the mix because those species generally require pretreatment of seed prior to application or do not establish well from seed.
- With fewer seed mixes, it is cost-effective to include more species in each mix. The perunit cost of custom-collected seed is high if only a small amount is collected. Having a more diverse seed mix increases the likelihood of successful establishment of some species in different microhabitats. Diversity of species within one site increases the erosion control potential and the likelihood of recovery after fire.
- It is less expensive to apply fewer seed mixes because the seeding contractor does not
  have to change mixes frequently, saving time and material. It will also be easier to
  monitor because most of the disturbed roadway corridor will have similar treatments
  making it easier to isolate problem areas.

Areas currently vegetated as bigberry manzanita chaparral, chamise chaparral, coastal sage-chaparral scrub, southern mixed chaparral, red shank chaparral, and scrub oak chaparral will be seeded with the chaparral mix. The big sagebrush scrub mix will be representative of this community alone. Small amounts of chaparral surrounded by big sagebrush scrub will be treated as big sagebrush scrub for continuity and because the post-construction attributes of the soil are expected to be very similar in adjacent areas. Areas currently supporting white alder-live oak riparian forest, southern cottonwood-willow riparian forest, open cottonwood-willow riparian forest, and southern willow scrub will be seeded with the riparian mix and container plantings will be installed that were selected specifically for each site. The riparian seed mix will include upland and transitional species because they are present in adjacent areas and will provide cover while cuttings, transplants, and container plantings are establishing. Ruderal and old road areas will be seeded with a mix based on adjacent vegetation. For example, ruderal areas in bigberry manzanita chaparral will be seeded with the chaparral mix.

Seed mixes may be adjusted depending on the availably of seed of a specific species during the year when seed is collected with approval of the project biologist. If a species will be eliminated from the mix, one should be added to maintain diversity. If adding a species is not feasible, quantities of the remaining species will be increased.

In addition to seeding, container plantings, transplants, and cuttings will be installed in sensitive riparian habitat areas and at other key areas (e.g., the entrance to closed roadway sections). Redshank and other attractive shrubs will be transplanted from areas of the road corridor, grown in a nursery until construction is complete, and planted. Precise number of shrubs to be transplanted has not been determined.

The riparian seed mix will be applied as described in section 4.2.5 to all riparian areas to be revegetated. The seed mix is intended to create a low density of native shrubs and grass among

which container plantings will be installed. Container plantings, cuttings, and transplants in riparian areas will be specific to the preexisting and/or adjacent vegetation. Numbers of plants of a particular type are not specified as part of this plan. That will be determined during formulation of the detailed revegetation plan for the project. Plantings for each riparian area are listed in Table 4-4.

Location Description	Plantings To Be Installed and Approximate Density
Riparian Area #1 (Station 302.750)	<ul> <li>Salix lasiolepis (C)</li> <li>Populus fremontii (CP)</li> <li>Platanus racemosa (CP)</li> <li>Baccharis salicifolia (T or CP)</li> <li>Artemisia douglasiana (T or CP)</li> <li>Juncus sp. (T)</li> </ul>
Riparian Area #2 (Station 303.850)	<ul> <li>Populus fremontii (CP)</li> <li>Baccharis salicifolia (T or CP)</li> <li>Artemisia douglasiana (T or CP)</li> </ul>
Riparian Area #3 (Station 307.350 to 3.8.750)	<ul> <li>Salix lasiolepis (C)</li> <li>Salix laevigata (C)</li> <li>Platanus racemosa (CP)</li> <li>Juncus sp. (T)</li> <li>Artemisia douglasiana (T or CP)</li> </ul>

Table 4-4. Plantings for Riparian Areas

## 4.2.5 Seed Application

Seeding. All areas to be restored will be seeded with a mix prescribed for the habitat in the surrounding area (See Tables 4-1 through 4-3 for seed mixes). Seed mix application areas are delineated on project plans and shown generally in Figure 4-1. Total area to be revegetated by plant community is given in Table 4-5. Seed will be applied with 60 lbs/acre of mycorrhizal innoculum. The benefits of seeding combined with mycorrhizal inoculum are well documented and are expected to increase establishment, size, and survival of seeded species.

Plant Community	Total Acreage
Chaparral	54.9
Big sagebrush scrub	5.5
Riparian	0.6
Areas too steep to revegetate	5.6
Total	66.6
Total acreage is based on plans dated 08/08/2002 Acreage does not include temporary utility access road	

Table 4-5. Revegetation Area by Plant Community

Seeds will be applied with an imprinter. An imprinter works by inserting mycorrhizal inoculum below the soil surface. Then it presses the seed into the ground in mini-watershed divots. The imprinter will be of the type that is mounted to the blade of a bulldozer so seed and inoculum can be applied on steep slopes. See Figure 4-2 for photographs of an imprinter. Seed application will take place in the fall or early winter after the first rains. The intention of waiting is to ensure the soil is moist and that the imprinter can make indentations to the desired depth.

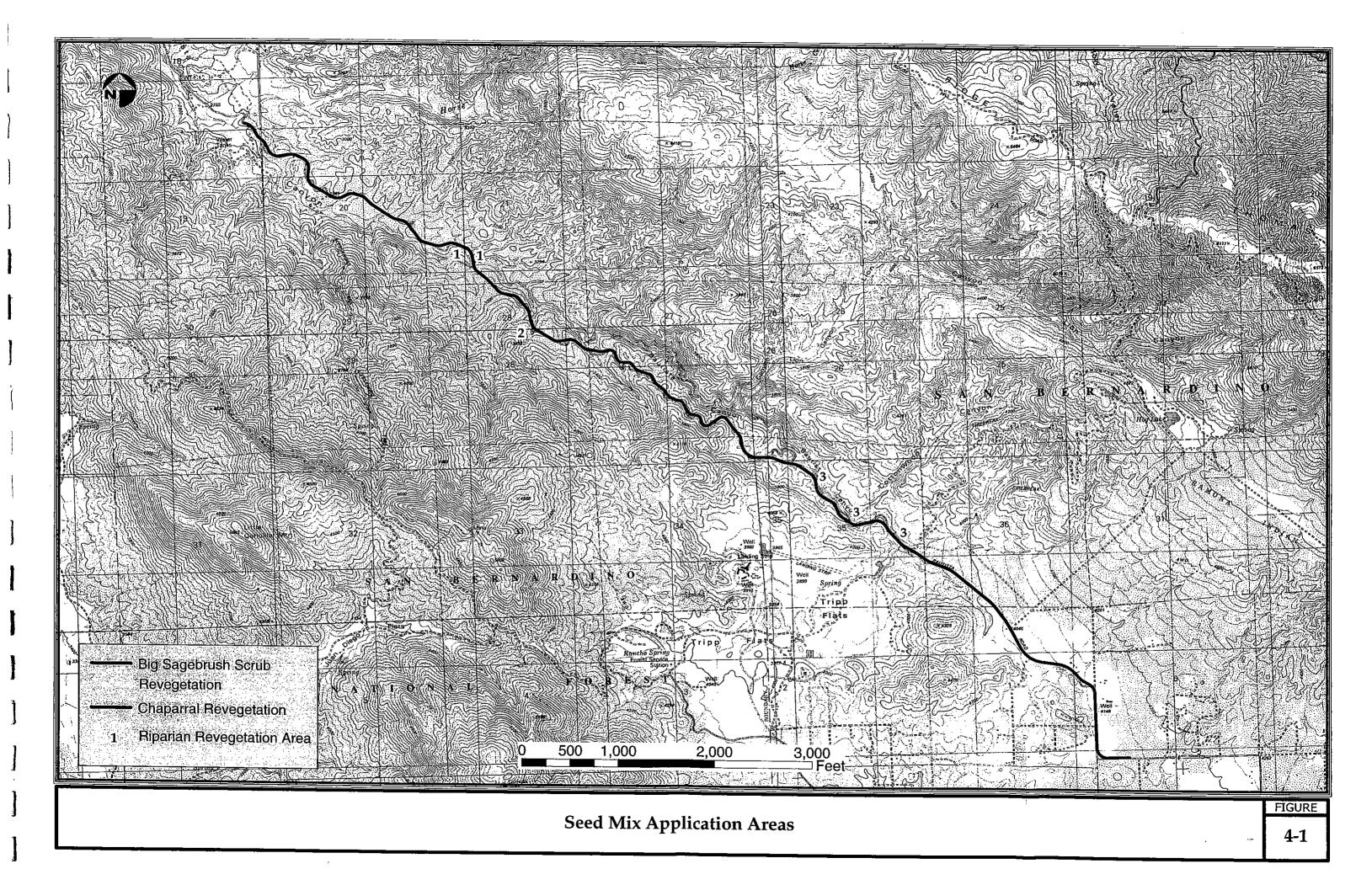
An imprinter was chosen for seed application for the following reasons:

- Recommendation of experts.
- Seed is dry when it is applied and capable of "waiting" until the ground is appropriately
  wet before sprouting. Hydroseeding is the other typical method used on steep slopes
  and in such a dry environment, seeds often die before there is sufficient rainfall.
- The indentations cause water to collect and percolate instead of running off. This results in increased water availability for establishing vegetation.
- The imprinter allows mycorrhizal inoculum to be applied with the seed. Mycorrhizal inoculum aides in establishment, growth, and survival of many native plants.
- The imprinter aides in erosion control by making indentations in the ground that are better than track-walking because the indentations are not in even rows.
- The imprinter is an ideal way to apply seed on steep slopes. If a bulldozer can work on the slope, it can be seeded. The only other way to apply seeds to steep slopes is by hydroseeding or hand-sowing. Hand sowing is less effective and drill seeding can only be done on relatively flat surfaces.

#### 4.2.6 Installation of Plantings

Container Plantings. Precise locations for installation of container plantings will be determined in detailed revegetation plans for this project. Instructions for installation of container plantings at locations specified are as follows:

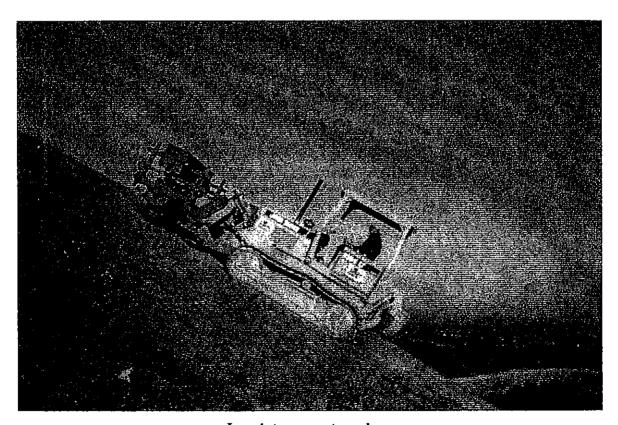
- 1. Excavate a planting hole twice as large as the rootball of the plant to be installed.
- 2. Partially backfill the planting hole with friable native soil.
- With the palm of the hand covering the open end, upend the plant container.
- 4. Carefully tap the container so the plant rests upside down on the hand, leaving the rootball completely intact.
- 5. Examine the plant for a healthy root system. If there are signs of being rootbound or girdling, break up the roots to allow proper growth.
- 6. Insert the rootball into the planting hole so the top of rootball is approximately 1 inch above the finished grade.
- 7. Firm the soil around the plant and add more backfill if necessary to bring soil to the root crown at finished grade.
- 8. Construct a 4-inch-high, hand-compacted earthen berm 30 inches in diameter around the plant unless otherwise directed by the project biologist.
- 9. Irrigate immediately after installation to settle the soil.





Imprinter

Soil surface following imprinting



Imprinter on a steep slope

Photographs provided by Nature's Image Inc.

Figure 4-2. Land Imprinting

- 10. If roots become exposed, place additional soil around the root crown.
- 11. Evenly apply 3 inches of organic mulch within the planting basin. Alternatively, a porous weed mat may be used to prevent the watering basin around the tree from being colonized by non-native grasses.

Transplants. This method will be used for direct transplant of rootstock for plants such as roses, rushes, and mugwort. Instructions for collecting and installing transplants follow.

- 1. Conduct direct transplant of root stock in winter to early spring for better success.
- Collect a mass of root structures at least 6 x 8 x 8 inches (approximately) deep and adherent soil from healthy populations in adjacent areas or in roadway areas to be disturbed.
- 3. Collect the root structures from different areas to avoid excessive disturbance to existing populations when collecting in areas that will not be disturbed by road construction. For transplants from within the road disturbance area, all plants of specified species should be salvaged (as feasible). For mugwort, the mass of root structure can be only 3 to 4 inches deep and will generally consist of a rooting section of a branch.
- 4. Keep root sections moist and protected from wind and sunlight from time of collection to time of installation on the same day as collected. If transplants cannot be planted on the same day they are removed, transfer to a nursery for care and plant as described for container plantings above.
- 5. Select a planting location based on elevation and proximity to existing plants and other transplants.
- Excavate a planting hole slightly bigger than the size of the rootball.
- Plant and compact rootball thoroughly into soil.
- 8. Backfill with suitable native soil as required. Water immediately after planting.
- 9. Cut stems to approximately 6 inches above root structure.

Cuttings. The following method will be used to obtain and install willow cuttings:

- 1. Obtain cuttings from adjacent areas during the winter while plants are dormant (generally December through March 15th, depending on species).
- 2. Take cuttings from several different plants to maintain the species and genetic diversity within the creek.
- 3. Use sharp pruning shears or saw to take cuttings without causing injury to the bark.

- 4. Cut the bottom at a slant. Cutting should be from 1.5 to 3 feet long, and from 0.5 inch to 1.5 inches in diameter at the bottom.
- 5. Trim side branches with sharp pruning shears, flush with the main branch without causing injury to buds.
- 6. Keep cuttings moist by wrapping them with wet fabric during transport, if conditions are dry or windy, or if transport takes more than 30 minutes.
- 7. If possible, install cuttings on the same day as cut, or store overnight fully immersed in water.
- 8. Auger or dig a planting hole 8 to 12 inches in diameter to a minimum depth of 2 feet.
- 9. Place the cutting right side up, approximately 75 percent of cutting into the hole with slanted end pointing down (buds pointed up).
- 10. Backfill with friable native soil and compact the planting hole to finish grade or drive cuttings into soil using a mallet or by pushing.
- 11. Irrigate immediately to settle the soil.
- 12. Adjust soil level as necessary to finished grade.

#### 4.2.7 Erosion Control

This section addresses surface erosion control to reduce loss of topsoil and sedimentation into creeks and drainages. A plan to maintain stabilized soil through use of proper soil compaction and techniques such as terracing will be developed by design engineers at the 70 percent plan stage and are beyond the scope of this plan. Short-term erosion control (during construction and before seeding) is not addressed here and should be addressed during project planning and engineering as timing will play an important role in the need for temporary erosion control.

The most effective long-term erosion control will be established vegetation. Above ground, it will slow the energy of rainfall and allow infiltration of that rainfall into the soil. The presence of variable rooting types and microorganisms that make up the soil environment will hold the soil together, making erosion less likely. However, before the native vegetation is well established, the potential for erosion is high. Measures will be needed to ensure that topsoil is not washed away before plants are well established.

Except where slopes are too steep to accommodate a land imprinter (used for seeding), all erosion control will be applied subsequent to seeding. Erosion control installed prior to seeding would likely be destroyed during seeding (if done by an imprinter). Slopes that are too steep to be seeded by an imprinter may be hydroseeded or have seed applied with a binder to help prevent erosion.

The depressions made by the imprinter will aid in erosion control by increasing percolation of rainfall into the soil and slowing run-off. Any water draining beyond the depressions left by the imprinter will have to be slowed and directed off the project. For that reason, water should

be directed off the disturbed area by logs made of coconut fiber, rice straw, or certified weed-free straw (see Figure 4-3 for a diagram of installation of logs) or similar devices. Typically, the logs consist of biodegradable fibers stuffed into tubes of photodegradable plastic netting. They work by decreasing the amount of vertical slope subject to erosion (by breaking it into smaller pieces). The individual logs are installed in a trench that is 50 to 100 mm deep (2 to 4 inches) and staked into place. The stakes should be driven approximately 400 mm into the ground and staked every 150 mm (6 inches). Adjacent rolls should be abutted securely, but not over lapped.

Additional methods of surface (topsoil) erosion control will be addressed later in project development, but may include techniques such as the following:

- Erosion control fabric. There are a variety of types of erosion control fabric that can be
  used under different conditions. The purpose of the erosion control fabric is to dissipate
  the energy of rainfall, but allow plants to germinate through the fabric. There may be
  some limitations to using this method in combination with imprinting as good soil to
  fabric contact may be difficult to obtain with the divots created by the imprinter.
- Hydroseeding/Hydromulching. This technique involves spraying the seed on the slope with a slurry of much. The mulch acts to dissipate the energy of raindrops and runoff. There are binders available as well that are more effective than hydromulch in holding together and thus preventing erosion.
- Waterbars. Similar in function to fiber logs described above, but made of soil and cannot be used in conjunction with imprinting.
- Willow cuttings installed at steep creek banks to facilitate rapid willow growth and bank stabilization.
- Willow wattling. Sections of willow stems are tied in bundles and partially buried.
   They are held in place by willow stakes.

Erosion control logs and other devices (if applicable) should be inspected frequently during the first rainy season following installation. Installation and maintenance could be part of the revegetation contract or tied to the revegetation monitoring effort.

#### 4.3 IRRIGATION

Irrigation is recommended for container, cutting, and transplanted plants in riparian and other areas because seeded species are expected to establish without additional irrigation. Selection of appropriate irrigation methods will be made during development of a detailed revegetation plan. The following irrigation methods will be considered:

 Drip irrigation to individual plantings. This option would consist of water storage (e.g., storage tank beside the road and above the restoration area) with water lines running from the storage device to the plantings. The water tank could be filled periodically with a water truck. Drip emitters would have to be inspected frequently to ensure they were working properly and that rodents had not damaged the irrigation lines.

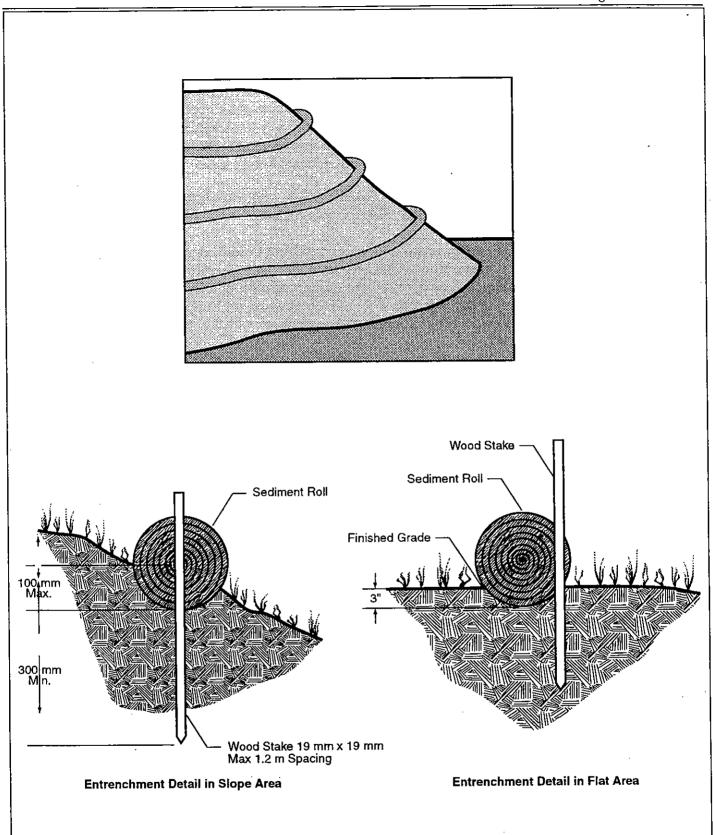


Figure 4-3. Installation of Fiber Rolls

• Using hoses and laborers to water individual plantings. Water would be contained in a water truck parked on the road with hoses running from the truck to plantings. Water could be applied to basins around individual plants or to tubes that would transfer the water to the root zone of individual plants. In some locations, the hoses would have to be extended long distances over steep terrain. Some minor damage to existing vegetation and plantings would be expected due to hoses being dragged. This method involves cost and safety considerations, both for having the truck parked on the road for extended periods and for having laborers working in the heat and steep terrain.

Frequency of irrigation will be determined during the development of a detailed revegetation plan, but will generally be conducted during the first 1 to 3 growing seasons after planting, depending on rainfall.

#### 4.4 WEED CONTROL

Weed control will focus on the following species:

- Those with the potential to interfere with the reestablishment of native vegetation in the restoration area (as used here road corridor is synonymous with construction corridor and includes all areas disturbed by construction)
- Those that are not already so prevalent in areas immediately adjacent to the restoration area as to reduce reestablishment of plantings

Weeds will be removed manually where practical. Herbicides will be used to control weeds or infestations. A qualified biologist will monitor all herbicide use and appropriate precautions will be taken to prevent incidental damage to natives. These precautions include directional spraying to avoid natives and stopping spraying when wind speeds exceed 5 mph, potentially causing drift.

In shrub communities, weed control will focus on the following highly invasive species: yellow star thistle (*Centaurea solstitialis*), Russian thistle (*Salsola tragus*), and tocalote (*Centaurea melitensis*). Surveys and treatment will be timed to prevent or minimize seed set of these species. Other weed species such as mustards and wild radish will be removed as recommended by the project biologist to ensure successful revegetation.

In riparian areas, persistent perennial weeds such as tamarisk, castor bean, and poison-hemlock that would interfere with revegetation goals will be the focus of weed control efforts. Individual tamarisk and castor bean will be removed annually; poison-hemlock will be treated at least annually by herbicidal or manual means to minimize its competitive effect on reestablishing vegetation, if it observed. Annual and non-persistent perennial weeds, such as sweetclovers (*Melilotus* spp.) and rabbitsfoot grass (*Polypogon monspeliensis*), may be cut back as judged necessary by the project biologist to minimize competition with plantings.

#### 4.5 MONITORING

#### 4.5.1 Monitoring Tasks and Schedule

An intensive monitoring program is recommended to ensure that revegetation goals are met. The revegetation areas will be monitored for a minimum of 3 years, extending until performance criteria are met. It may take 5 years to meet the performance criteria. Weeds and other problems need to be identified early to ensure that they are properly addressed before they worsen.

The objectives of monitoring will be to document germination, establishment, and growth of natives and to identify the need for maintenance such as erosion control, weed eradication, or replanting

Prior to planting, the revegetation contractor will ensure the integrity of the soil surface, that all temporary devices installed during construction (other than for erosion control) are removed, and the soil surface is prepared (as necessary) for seeding. In addition, in areas of fill or where soil does not appear conducive to plant growth, soil should be sampled for presence of chemicals that may reduce revegetation success. Areas with less than 2 inches of salvaged topsoil should be tested as well. This sampling may detect concentrations of boron, salts or other naturally occurring substances in the fill or cut soils that may impede plant growth. If localized areas are found, then remedial action can take place before revegetation. Subsequent to planting, the road corridor should be inspected for completeness of work by the seeding contractor, and to ensure that all erosion control measures are in place and functional. After planting, the objectives of monitoring will be to document establishment and growth of planted species and to identify the need for maintenance including erosion and/or weed control. Incipient weed problems are defined as establishment on the treatment area of weedy species not abundant in adjacent areas that might, by establishment on the treatment areas, interfere with revegetation by native species or threaten to invade adjacent undisturbed habitats. Specific requirements for cover and density etc. are discussed in section 4.5.2, Performance Criteria.

Table 4-6 depicts the recommended monitoring schedule for each monitoring visit. The entire road corridor and abandoned road segments should be monitored according to this schedule. Monitoring of specific areas will cease, however, when performance criteria are met. Seed planting will generally be done during the fall or early winter following construction and monitoring would begin during that growing season. For this reason, the year subsequent to completion of construction is generally assumed to be the first year of the revegetation monitoring effort. This schedule may be modified, as necessary, depending on site-specific conditions. Substantive changes in the schedule, such as a recommendation to omit a particular activity because it appears unnecessary, will be submitted to SBNF for approval prior to implementation. While minor maintenance can be accomplished during monitoring, major maintenance efforts such as erosion and weed control, supplemental irrigation, reseeding, or replanting, etc., will be scheduled, as necessary.

During the first year after planting, monitoring will be conducted in February/March, May/June, and October (as listed in Table 4-6). Additional visits may be required to detect and correct erosion following significant rainstorms. Subsequently, scheduled monitoring will be

Table 4-6. General Revegetation Monitoring Schedule

Timing	Task
Year 1, Post Seeding	<ul> <li>General inspections seeding coverage, presence and proper placement of erosion control devices, weeds, and other problems (all plant communities)</li> <li>Minor maintenance</li> <li>Establish photo reference points</li> </ul>
Year 1, 2 months after seeding	<ul> <li>General inspections for vegetation establishment, vigor, weeds, and other potential problems (all plant communities)</li> <li>Minor maintenance</li> </ul>
Year 1, October	<ul> <li>General inspections for vegetation establishment, weeds, and other problems (all plant communities)</li> <li>Minor maintenance</li> <li>Photographic reference points</li> <li>Aerial or overview photographic monitoring (anytime from August through October)</li> </ul>
Years 2- remainder of monitoring period, March or April	<ul> <li>General inspections for vegetation establishment, weeds, and other problems (chaparral and big sagebrush scrub)</li> <li>Inspect planted trees and shrubs for survival and vigor and possible need for replanting (chaparral and big sagebrush scrub)</li> <li>Minor maintenance</li> </ul>
Years 2- remainder of the monitoring period, June	<ul> <li>General inspections for vegetation establishment, weeds, and other problems (riparian forest and scrub)</li> <li>Inspect planted trees and shrubs for survival and vigor and possible need for replanting (riparian forest and scrub)</li> <li>Minor maintenance</li> </ul>
Even-numbered years, October	<ul> <li>General inspections for vegetation establishment, weeds, and other problems (all plant communities)</li> <li>Inspect planted trees and shrubs for survival and vigor and possible need for replanting (all plant communities)</li> <li>Minor maintenance</li> <li>Photographic reference points</li> </ul>
Odd numbered years, October	<ul> <li>General inspections for vegetation establishment, weeds, and other problems (all plant communities)</li> <li>Inspect planted trees and shrubs for survival and vigor and possible need for replanting (all plant communities)</li> <li>Minor maintenance</li> <li>Photographic reference points</li> <li>Aerial or overview photographic monitoring (anytime from August through October)</li> </ul>
At completion of monitoring, October	<ul> <li>Vegetation surveys to verify that performance criteria are met (all plant communities)</li> <li>Inspect planted trees and shrubs for survival and vigor and possible need for replanting (all plant communities)</li> <li>Photographic reference points</li> <li>Aerial or overview photographic monitoring (anytime from August through October)</li> </ul>

#### Notes:

This schedule is subject to change depending upon a number of factors including: timing of project completion, seasonal climate conditions, survival rate of planted species, and rate and level of effort of maintenance activities. Maintenance activities associated with the revegetation effort such as erosion and weed control, protective devices, supplemental irrigation, replanting or reseeding, etc. will be scheduled and performed apart from this monitoring schedule.

conducted generally in March or April, June, and October. This schedule is preliminary and may be modified.

Trees and other plantings will be evaluated in the fall, prior to the dormant season, for a minimum of 3 years, in conjunction with the normal monitoring and maintenance. Plantings, seedlings, and resprouting from cut plants will be specifically inspected and evaluated for size and vigor, condition of protective devices (if any) and irrigation system (if any), presence of competitive weeds or other factors such as gophers or insect infestations, that might affect their survival. Remedial action can be taken as recommended by the project biologist. The riparian sites and other key areas will be photographed annually.

Aerial photographic surveys or overview photos taken from the road across the canyon are recommended and can be used to evaluate the progress of revegetation. Overview photographs taken from across the canyon may be superior to aerial photography because the angle of the photographs would be more perpendicular to the angle of the slopes being photographed. Photography could be recommended at the completion of construction and in the late summer or fall of the first and third years after commencing restoration. Photography should continue every other year until performance criteria are met. Scale of aerial photographs, if used, would be 1:2400 (1 inch equals 200 feet) to allow for easy interpretation. Results from these surveys may be evaluated and information on progress extrapolated using "ground truth" information from terrestrial monitoring activities. Copies of photographs with area of disturbance highlighted (as necessary) would be included in annual monitoring reports for the years that the photos are taken.

A minimum of 10 photographic reference points should be established at points providing an overview or a close up of revegetation areas. Points would be marked either by placing a stake or using an existing marker, such as a telephone pole or road sign. Points will be revisited annually and photographed. Every effort would be made to duplicate the area photographed in previous years as precisely as possible. Annual photographs from reference points should continue until areas that are the subject of photographs meet the performance criteria. A subset of the photographs would be provided in the annual monitoring report.

A minimum of 10 50-meter permanent transects are recommended in restoration locations in chaparral and three transects in big sagebrush scrub. Transect locations would be marked on a set of alignment sheets. All transects would be sampled for cover (line-intercept transect) and for density (1 meter belt transect on both sides of the tape) annually in the spring. All shrubs and Quino checkerspot nectar plants within each transect will be recorded, and cover by each species determined. Results of transect sampling would be provided in the annual monitoring reports.

Weed control will be integrated with the monitoring effort. Small individual weeds could be removed by hand where practical. Herbicide use would be necessary to control larger weeds or infestations. All herbicide use will be consistent with label directions and conducted under the supervision of a qualified applicator. Type and amount of herbicide to apply will be determined based on recommendations of a licensed pest control advisor. Timing of surveys and removal and/or spraying will be slightly before flowering of target species.

Whenever the performance criteria are not met or when monitoring indicates that additional erosion control or weed control actions are necessary, the project biologist will recommend measures in consultation with FHWA, SBNF, and Riverside County required to meet performance criteria and monitor the implementation of the measures.

#### 4.5.2 Performance Criteria

Performance criteria are designed to ensure that a self-regenerating ecosystem is re-established in the area of disturbance that is effective in erosion control and does not pose a threat to adjoining plant communities as a source of weeds or non-local genotypes of native species. The ultimate (long-term, beyond performance criteria) goal in areas of predominantly native plant communities is to return the disturbed area to a native plant community characteristic of the site prior to disturbance.

Field monitors will record key revegetation information such as species present, cover of individual species, overall cover, and presence and abundance of weeds. The data collected will be entered into a database and then compared to the performance criteria to determine if attainment has been reached and, if not, to estimate the additional time required to meet the criteria.

The locations of all plantings will be marked on a copy of the project plans. These sites will be periodically revisited by vegetation monitors during the regular revegetation monitoring to determine success of plantings.

#### Chaparral and Big Sage Brush Scrub

Goal: Establish self-regenerating chaparral ecosystem that is effective in long-term slope stabilization and erosion control and that does not pose a threat to adjoining plant communities as a source of weeds. The vegetation should gradually develop the characteristics of the adjacent undisturbed chaparral communities.

**General Objectives:** At acceptance the following objectives must have been met in chaparral and big sagebrush scrub:

- Topsoil is stable and not being lost to wind and water erosion to an extent that exceeds similar adjacent areas that were not disturbed for a minimum of 3 years.
- Native shrub density should generally be about 1 per square meter. The minimum
  density requirement was determined based on ranges in density of mature vegetation
  sampled for this project as described in Chapter 2. Generally, a higher density would be
  desired in recovering areas than in undisturbed areas because recovering shrubs would
  be young and expected to thin. Density values will be estimated using an objective
  technique such as transects on representative sample areas.
- No concentrations of weeds are present that would threaten to invade adjoining native habitats. Examples of weeds that would pose a threat to adjoining habitats include yellow star thistle and fennel (Foeniculum vulgare). The abundance of these species in the restoration area must be no greater than in adjacent areas of scrub and chaparral not disturbed by construction and should not threaten continued recovery of native

vegetation, after year 3, toward equivalency with adjoining vegetation not disturbed by the project.

Objectives Specific to Chaparral: At acceptance the following objectives must have been met in chaparral only:

- The percent ground cover by native perennial vegetation has increased over the
  monitoring period and is at least 40 percent at the end of monitoring. Alternatively,
  native vegetative cover must equal that on a nearby ecologically equivalent reference
  area identified at the outset of the project.
- A minimum of five native perennial plant species can be found in a representative 2meter wide belt transect conducted in the restored area, except where adjacent areas of undisturbed vegetation have fewer native perennial species in a comparable area, and native shrub density meets the previous objective.

These criteria will be evaluated during monitoring and may be revised to take into account any unusual conditions, such as drought, and to incorporate the latest standards generally acceptable to the local scientific community.

## Riparian Forest/Scrub

#### General

Goal: Restore suitable areas previously disturbed by construction to riparian habitat having species composition and habitat value equivalent to adjacent riparian areas of similar channel elevation.

Objectives: At the end of monitoring the revegetated site will have the following characteristics:

- Well-established ground cover that is appropriate for the site. This may consist of native riparian understory species, such as mugwort, mulefat, etc., and freshwater marsh species. The understory and marsh species should cover all habitat that would normally support understory. Ground cover must be in vigorous condition and be stable or increasing in trend.
- Established saplings of tree species from adjacent areas will be vigorous and in positions
  as to eventually form (without additional protection or maintenance) a canopy over the
  stream equivalent to that of adjacent undisturbed areas. At acceptance, trees must meet
  objectives stated below under "Trees."
- Cover by weedy species should be at a minimum. The site must be completely free of perennial exotic species such as tamarisk, except as outline below. At acceptance, the total ground cover by weeds must meet one or more of the following conditions: (1) be less than 10 percent of the habitat area; (2) be of equivalent (or lower) density to that in adjoining habitat areas not disturbed by construction; or (3) be composed of species that are typical of early successional riparian habitats but that are gradually eliminated as the

riparian habitat develops. Weeds must be in a decreasing or stable condition based upon a year-to-year comparison.

 Have survived (meeting other defined criteria) for a minimum of 2 years without supplemental irrigation.

Acceptance would require a demonstration that these objectives have been met.

Trees

Goal: Planted trees (cottonwoods and sycamores) should be able to survive under normal circumstances without further protection or maintenance. Young trees must be readily able to withstand normal seasonal droughts and pressure from herbivores. Riparian trees should be situated in such a way as to be able to survive normal seasonal flooding.

Objectives: At the end of monitoring, planted trees should meet the following criteria:

- Have a vigorous appearance.
- Be a minimum of 2 inches in diameter at the base.

If substantial replanting is necessary during the project, monitoring may be extended.

#### 4.5.4 Reporting Requirements

Annual progress reports should be prepared by February 1 of each year during active monitoring of restoration. The annual report would cover restoration activities and results of monitoring for the preceding year. Reports would provide a narrative description of the progress of the revegetation and qualitative and quantitative results of the monitoring. The report would include an analysis of the monitoring data, and recommendations or remedial actions, if necessary. Transect data and tree growth data would be summarized in graphical and/or tabular form. Photographs of stream crossings and photographic reference points would be included in the reports.

Any substantive deviations from the approved plan proposed by the FHWA will be submitted to SBNF for approval prior to implementation.

FHWA may institute emergency changes of a substantive nature under exigent conditions. No changes will be made which could substantially affect threatened, endangered, or rare species, or species of special concern without prior notification to and written approval from permitting agencies.

erosion control) should be identified prior to seeding or planting and the treatment implemented at the appropriate time. It is further recommended that chemical soil testing be performed in areas to assure that exposed soils have the chemical constituents necessary to support the vegetation type identified in the plan. High levels of boron, salinity, nitrate, or alkalinity are especially important to identify and correct.

#### 5.2.2 Plan Implementation

The detailed landscape and revegetation plan will be implemented as defined by the detailed plans and specifications.

## 5.2.3 Monitoring

A detailed monitoring plan should be prepared and implemented. It should incorporate the final success criteria and the methods for analyzing the vegetation to determine success. The monitoring plan should specify a schedule for monitoring and methods and frequency of removal of noxious weeds. Additionally the plan should identify the methods and timing of any reseeding should the revegetation program not meet the expected success criteria.

#### 6.0 REFERENCES

- AMEC Earth & Environmental, Inc. 2002. Biological Assessment/Biological Evaluation for the Bautista Canyon Road Project. Prepared for County of Riverside. Internal Draft. April.
- Emery, D.E. 1988. Seed Propagation of Native California Plants. Santa Barbara Botanic Garden. Santa Barbara, California
- Everett, P.C. 1957. A Summary of the Culture of California Plants at the Rancho Santa Ana Botanic Garden 1927-1950. Abbey Garden Press.
- FHWA. 2002. Federal Highways Administration, Draft Engineering Plans, 8/8/02.
- Keeley, J.E. 1991. "Seed Germination and Life History Syndromes in the California Chaparral." Bot.Rev. 57:81-116.

This page intentionally left blank.

# APPENDIX A Contact Forms



Page __1_ of __1

**Personal Contact Report** Name of Contact/Title: **Edith Allen** Organization and Address of Contact: University of California at Riverside Ext.: Telephone No.: 909-787-2123 Resource/Discipline/Topic: **University Professor** Time: Contacted by: Date: 7/23/02 Tamara Klug Meeting Contact Type: Phone X Meeting Location (Circle one) Included in reference list: Yes _____ No: ____ Prepared by: SUMMARY OF DISCUSSION, DATA COLLECTED AND RECOMMENDED CONTACT Ms Allen has conducted research in revegetation in Riverside County for several years. She conducted a study of germination and establishment of different species using different seeding methods. She found that the success by different methods depending on the size of the seed. Smaller-seeded species were more successful when hydroseeded and larger-seeded species where more successful when they were drill seeded. She sent me several papers she had written and gave me references for some others. She recommends imprinting on slopes if possible. If imprinting is not possible, soil should be scarified.



Page __1_ of _1_

**Personal Contact Report** Name of Contact/Title: **Grady Banister** Organization and Address of Contact: Nature's Image 20381 Lake Forest Drive, Suite B-19 Lake Forest, CA 92630 Ext.: Telephone No.: 949-454-1215 Resource/Discipline/Topic: **Revegetation Contractor** Time: Date: Contacted by: 7/23/02 Tamara Klug Meeting **Contact Type:** Phone X Meeting Location (Circle one) Included in reference list: Yes ____ No: Prepared by: SUMMARY OF DISCUSSION, DATA COLLECTED AND RECOMMENDED CONTACT Discussed feasibility of different seeding techniques in dry habitats and in on steep slopes. Types and approximate cost of each method is listed below: Imprinting. There are two types tow behind and slope imprinters. Tow behind imprinters can be used in similar areas as drill seeding (limited to almost level areas). Slope imprinters can handle any slope that a bulldozer can drive on. Very approximate cost is \$500/ acre, for application only (does not include cost of seed or mycorrhizal inoculum). I did not request details on the pros and cons of success with imprinting because I have other literature sources on the subject. Hydroseeding. Hydroseed can be applied on any steepness of slope; it is only limited by the length of hose required to apply it and the strength of the pump to get it p a hill. Mortality of the seed is generally higher and riskier with this method as it is dependent on rainfall shortly after application and too much rainfall can cause it wash away prior to seedling establishment. Binders to improve erosion control are possible, at substantial increase in cost. Feasibility is difficult in areas without a good water source. Cost is about \$1000/acre without a binder. Drill Seeding. Drill seeding is not commonly used. It can only be used in relatively flat areas. Cost is about \$500/acre.



Page _1__ of _1__

	Persor	iai Contac	neport	
Name of Contact/Title: Bruce Berlin				
Organization and Add S & S Seeds	ress of Contac	c <b>t:</b>		
Telephone No.:			Ext.:	
805-684-0436			<u> </u>	
Resource/Discipline/T Seed Contractor	opic:			
Contacted by: Tamara Klug		Date: 7/24/02		Time:
Contact Type: (Circle one)	Phone X	Meeting	Meeting Location	
Prepared by:  SUMMARY OF DISCUMR. Berlin gave me data	SSION, DATA	COLLECTED A	ND RECOMN	species we were
considering for the proj commercially from stoo Alamos.	k in the Moren	o Valley. The g	rowing area is	s their ranch in Los
dry habitats. He knows	of one arid pro y below norma year (with norm	oject where seed I and nothing car	was imprinted ne up. The p	ed application, especially in d one year. The rainy roject was considered a nputs) the seeded species



Page _1__ of __1_

	Person	al Conta	ct Report	
Name of Contact/Title: Baldo Villegas				
Organization and Addi 3288 Meadow View Ro Sacramento, CA 95832	ad	t:		-
			<del> </del>	
Telephone No.:			Ext.:	
916-262-2051				
Resource/Discipline/Tolerand	opic: linator for Yello	ow Star Thist	e Biological (	
Contacted by: Tamara Klug		Date: 8/12/02		Time:
Contact Type: (Circle one)	Phone X	Meeting	Meeting Location	
Included in reference	list: Yes	No:		
Prepared by:				
Lis involved in a project i	learn more abouusing biological The project hands. The proble	at yellow star to control agente as been going cm in Riversid	histle infestati s (e.g. beetles) on for more th e County is les	to control or reduce seed an a decade and they have as than some areas
	,			



Page ___ of __2_

**Personal Contact Report** 

		••••	•••			
Name of Contact/Title: Melody Lardner						
Organization San Bernardino Nation San Bernardino, CA	nal Forest					
						•
Telephone No.:					Ext.:	
Resource/Discipline/T Botany/Revegetation	opic:				<del></del>	
Contacted by: Westermeier/Klug			Date: May 8, 20	002		Time:
Contact Type: (Circle one)	Phone		Meeting	X	Meeting Location	Riverside, CA
Included in reference	list: Yes_	x_	_ No: _		_	
Prepared by: Westerm	neier					
SUMMARY OF DISCU	SSION, DAT	ra co	DLLECTED	AN	D RECOM	MENDED CONTACTS:
This information was pr	ovided duri	ng a S	SEE meeting	g.		
seeds should be used a Seeds and propagation within 1,000 feet of the everything especially a seeding, weed control anatives such as sterile would be appropriate especially when there is	whenever permaterials so the elevation steep road cand compact grasses. Traffor ripariants a dry year.	ossibleshould to be cuts. tion. anspla	e and the to be collect revegetate Major factor The SBNI anting of votices. Hydronest each of the collection of the coll	use ted d. tors meget rose	of noxious within the It may not associated ay allow teation is not eding has	mber of suggestions. Native weeds should be avoided. same mountain range and be necessary to revegetate with revegetation include mporary seeding with nontypically successful, but it not seemed to work well,
i ne California Departm	ent of Trans	porta	tion (Caltra	ns)	may be a go	od source of revegetation

The California Department of Transportation (Caltrans) may be a good source of revegetation plans and information. They developed the Highway 138 revegetation plan. That highway looked good after only a couple of years. It was recommended that Caltrans be contacted.

The SBNF wants abandoned roadways regraded to natural topography and those areas and critical habitat intensively revegetated. Any use of herbicides for noxious weed control should be addressed in the EIS/EIR. Mitigation in the form of removal of noxious weeds such as tamarisk should also be considered. The Forest Service Weed Prevention Guide may have



Page ___ of ___

useful information. Noxious weed surveys would also be required.

More intensive revegetation should be conducted near roadways and vertical mulching should also be considered. The outlook should also be more intensively vegetation. This area should also be considered for interpretation of native plants. Use of container plants may be appropriate for this area. Revegetation should be at a successional stage and not a climax stage.

Rock coloring should be considered for major visual areas. Coloring may not be necessary throughout the alignment.

Criteria for revegetation success are needed. There is no Forest Service standard for success criteria for revegetation. Criteria are developed on a project specific basis. Top soil should be removed and stored where possible. The crushed brush, also known as duff, should also be removed and stored.



Page	1	of	1

**Personal Contact Report** 

Name of Contact/Title: Lydia White, Technicia		_ <del>-                                   </del>			
Organization California Department District 8 San Bernardino, CA	of Transpo	rtatio	on		
Telephone No.:	•			Ext.:	
909-494-0349					
Resource/Discipline/To Botany/Revegetation	opic:				
Contacted by: Westermeier			Date: July 17,2002		Time:
Contact Type: (Circle one)	Phone	x	Meeting	Meeting Location	
•	eier existence of	reve	getation plans f	or the High	way 138 widening projects cate any separate plans or
specifications for these paper specifications and not serve getation plants, but the serve getation plants are served as the serve getation plants.	parate docu	ment	s. Caltrans is co		

Observers: <u>C.≦.</u> Species	Tally		Abbreviati
Artr			Adfa
<u> </u>	MIN MININ WIN WIN	Adenostoma sparsifolium	Adsp
<del></del>		Arctostaphylos glauca	Argl
	(8°)	Artemisia californica	Arça
		Artemisia dauglasiana	Ardo
rfa	LM II	Artemisia douglasiana Artemisia tridentata	Artr
-17-6	(7)	Baccharis salicifolia	BaSa
		Ceanothus cuneatus	Cecu
<del></del>		Ceanothus leucodermis	Cele
ef;	thu Cit	Cercocarpus betuloides	Cebe
<u>et, </u>	<u> </u>	Encelia farinosa	Enfa
•		Eriodictyon crassifolium	Ercr
7	lind C		Erfa
Crca	M (s)	Eriogonum fasciculatum Heteromeles arbutifolia	Hear
<del>_</del>		Keckiella antirrhiniodes	rieai Kean
V= -0	114 114 114	Keckiella ternata	Kete Kete
Pece		_	Lefi
<del></del>	<del>-</del>	Lessingia filaginifolia	Losc
		Lotus scoparius	Mafa
		Malacothamnus fasciculatus	
	<del></del>	Mimulus aurantiacus	Miau
		Plantago racemosa	Plra
		Populus fremontii	Pofr
<del></del>		Prosopus glandulosa	Prgl
<del></del>	· · ·	Prunus ilicifolia	Pril
<del></del>		Quercus agrifolia	Quag
		Quercus berberidifolia	Qube
		Rhamnus ilicifolia	Rhil
		Rhus ovata	Rhov
		Salix exigua	Saex
		Salix laevigata	Sala1
		Salix lasiolepis	Sala2
		Salvia mellifera	Same1
		Sambucus mexicana	Same2
		Lessingia filaginitolia	Left
		Crotox californius	Crca
		Pensteman centranthifolius	Pece
<del></del>			
		<u> </u>	. <u>.</u> .
		· · ·	
		<u> </u>	
		<u> </u>	

(Red Snank Happiral) Transect number: 7/21/02 Observers: (\E MB Date: Species Abbreviation Species Tally MI HA THE ME THE MAN HAM Adenostoma fasciculatum Adfa (Dec) Adenostoma sparsifolium Adsp IN WINT IN WITH Arctostaphylos glauca Argl (65)Artemisia californica Arca 44 44 1 Artemisia douglasiana Ardo Adfa Artemisia tridentatà Artr (0)Baccharis salicifolia BaSa Ceanothus cuneatus Cecu M W JK JK JKI Ceanothus leucodermis Cele Rhtr Cebe Cercocarpus betuloides (77)Enfa Encelia farinosa Eriodictyon crassifolium Егсг Erfa Eriogonum fasciculatum Heteromeles arbutifolia -ועי אוו Hear Erfor Keckiella antiπhiniodes Kean (II) Keckiella temata Kete Lessingia filaginifolia Lefi Lotus scoparius Losc Malacothamnus fasciculatus Mafa [0 Teco Mimulus aurantiacus Miau Plra Artr Plantago racemosa Populus fremontii Pofr Prosopus glandulosa Prgl Prunus ilicifolia Pril Quercus agrifolia Quag Quercus berberidifolia Qube Rhil Rhamnus ilicifolia Rhus ovata Rhov Salix exigua Saex Salix laevigata Sala1 Salix lasiolepis Sala2 Salvia mellifera Same1 Sambucus mexicana Same2 Rhtr Rhus trilobata Tetradunia comosa Teco

Species	Tally	Date: 8 1 02	Abbreviation
Adfa	IN UH HI WHILM WH	Adenostoma fasciculatum	<del></del>
PAT TA		Adenostoma sparsifolium	Adfa Yucca whipplei = Yuu Adsp Argl Lonicera spicala = Losp
<u> </u>	THE THE THE DAT THE THE TANK NOT THE		Argl Lonicera spicala = Losp
<del></del>	MI THE THE WIND WITH THE	Artemisia californica	Argi Zoriceo sprion cas
	M M M M M M M M M M M M M M M M M M M	-1	Arca Cutierietia california =
·		Artemisia douglasiana	
	(161)	Artemisia tridentata	Artr Guca
		Baccharis salicifolia	BaSa
<del></del>	-	Ceanothus cuneatus	Cecu Trichostemia lanati
Argl	Ш	Ceanothus leucodermis	Cele Tolo
	(5)	Cercocarpus betuloides	Cepe
		Encelia farinosa	Enfa
		Eriodictyon crassifolium	Ercr
		Eriogonum fasciculatum	Erfa
Trla	HI M WITH WITH WITH	Heteromeles arbutifolia	Hear
	July Hall	Keckiella antirrhiniodes	Kean
	(52)	Keckiella temata	Kete
		Lessingia filaginifolia	Lefi
		Lotus scoparius	Losc
Guca	Lulun II	Malacothamnus fasciculatus	Mafa
GOCIA	(2)	Mimulus aurantiacus	Miau
	- E	Plantago racemosa	Pira
		Populus fremontii	Pofr
<del></del>		Prosopus glandulosa	Prgl
Losp		Prunus ilicifolia	Pril
	·	Quercus agrifolia	Quag
		Quercus berberidifolia	Qube
		Rhamnus ilicifolia	Rhil
Cecu		Rhus ovata	Rhov
		Salix exigua	Saex
		Salix laevigata	Sala1
		Salix lasiolepis	Sala2
		Salvia mellifera	Same1
		Sambucus mexicana	Same2
		This were burned 210-1	<del></del>
-		by charge transport hit	for so other
		than Adfa. Historicly, prefix, probably	
5015: 505046	á.	included red shank as	the size of
Stope: flot/slightyNfacong		Communities many as	and and and and
		Communities a size a)	mixed actually
		are composed of large of	
		EXAL SOLE COMMENTED AREAS.	
<del></del>	<del></del>	A mosaic of the other CH types	
		mapped. Is small to map out at	
		No red shank require	
		No red shank recoultme	ent is visible.
	ł	1	•

Observers: <u>0E ' /</u>	Tally		Abbreviatio
Species		Adenostoma fasciculatum	Adfa
Argl	WINN MY MININ	Adenostoma sparsifolium	Adsp
<u> </u>	(28)		Argi
	(6)	Arctostaphylos glauca	Arca
·-··		Artemisia californica	Ardo Ardo
- A\	N13 411	Artemisia douglasiana	Artr
Opba	THE UIL	Artemisia tridentata	BaSa
<u>'</u>	(9)	Baccharis salicifolia	
·		Ceanothus cuneatus	Cecu
···		Ceanothus leucodermis	Cele
<u></u>		Cercocarpus betuloides	Cebe
·		Encelia farinosa	Enfa -
		Eriodictyon crassifolium	Ercr
Adfa.	WE THE THE THE TAIL	Eriogonum fasciculatum	Erfa
	(30)	Heteromeles arbutifolia	Hear
		Keckiella antirrhiniodes	Kean
Ercr		Keckiella ternata	Kete
	LHI LHI )	Lessingia filaginifolia	Lefi
	(1)	Lotus scoparius	Losc
		Malacothamnus fasciculatus	Mafa
		Mimulus aurantiacus	Miau
		Plantago racemosa	Plra
······································		Populus fremontii	Pofr
		Prosopus glandulosa	Prgl
		Prunus ilicifolia	Pril
·	<del></del>	Quercus agrifolia	Quag
· · · · · · · · · · · · · · · · · · ·	<del></del>	Quercus berberidifolia	Qube
<u> </u>		Rhamnus ilicifolia	Rhil
· <del></del>	<del></del>	Rhus ovata	Rhov
		Salix exigua	Saex
•		Salix laevigata	Sala1
		Salix lasiolepis	Sala2
		Salvia mellifera	Same1
· · · · · · · · · · · · · · · · · · ·		Sambucus mexicana	Same2
		Opuntia hasilaris	Opea
· · · · · · · · · · · · · · · · · · ·			
	:	· <del></del>	
	· · · · · · · · · · · · · · · · · · ·		
			<del></del>
·			
			· · · · · · · · · · · · · · · · · · ·

Erfo Adenostoma fasciculatum A	Abbreviation
Erfo Adenostoma fasciculatum Adenostoma sparsifolium A	
Adenostoma sparsifolium A	
	Adsp
[ [ [ ] [ Arctostaphylos gladica F	•
	Argl
	Arca Ardo
	Artr
· · · · · · · · · · · · · · · · · · ·	BaSa
	Secu
	)   Dele
· · · · · · · · · · · · · · · · · · ·	Cebe
	Infa
	Ercr
	fra
<del></del>	lear
	(ean
	Cete
	.efi
(10) Lotus scoparius L	.osc
Malacothamnus fasciculatus N	<i>l</i> lafa
Mimulus aurantiacus N	/liau
Plantago racemosa F	Pira
Populus fremontii F	Pofr
Prosopus glandulosa F	Prgi
	Pril
Quercus agrifolia Q	Quag
	Qube
	Rhil
	Rhov
<del></del>	Saex
	Sala1
	Sala2
	Same1
	Same2
Cambadas mexidara C	Darricz
	<del></del>
	· · · · · · · · · · · · · · · · · · ·
	<del></del>
	<del> </del>
· · · · · · · · · · · · · · · · · · ·	<del></del>
	·
	<u> </u>

pecies	Tally	Date: <u>8/1/02-</u> Species	Abbreviation
d-A	THE HE WILLIAM WAS	Adenostoma fasciculatum	Adfa
10-7A	THE WASHINGTON	Adenostoma sparsifolium	Adsp
·	W M M III	Arctostaphylos glauca	Argi
·	(43)	Artemisia californica	Агса
		Artemisia douglasiana	Ardo
mel	THE THE THE	Artemisia tridentata	Artr
mel	(6)	Baccharis salicifolia	BaSa
	(*)	Ceanothus cuneatus	Cecu
	<del>-  </del>	Ceanothus leucodermis	Cele
	<del></del>	Cercocarpus betuloides	Cebe
		Encelia farinosa	Enfa
7 / 2		Eriodictyon crassifolium	Ercr
)pba	· · · · · · · · · · · · · · · · · · ·	Eriogonum fasciculatum	Erfa
<del></del>		Heteromeles arbutifolia	Hear
		Keckiella antirrhiniodes	Kean
		Keckiella ternata	Kete
rfa	(9) [144]	Lessingia filaginifolia	Lefi
THO	- LUMT (P)	Lotus scoparius	Losc
	· · · · · · · · · · · · · · · · · · ·	Malacothamnus fasciculatus	Mafa
	<del></del> -	Mimulus aurantiacus	Miau
		Plantago racemosa	Pira
		Populus fremontii	Pofr
<del> </del>		Prosopus glandulosa	Prgl
<del></del>		Prunus ilicifolia	Pril
		Quercus agrifolia	Quag
		Quercus agmona Quercus berberidifolia	Qube
		Rhamnus ilicifolia	Rhil
		Rhus ovata	Rhov
		Salix exigua	Saex
		Salix laevigata	Sala1
		Salix lasiolepis	Sala2
		Salvia mellifera	Same1
<del></del>	-	Sambucus mexicana	Same2
		Opuntia basilaris	
		Oponia Bastia 13	Opta
			<del></del>
		<del></del>	
			<del></del>
		-	
			· ·
<del></del>			<u> </u>
	<del></del>		<del></del>
			· · · · · · · · · · · · · · · · · · ·
		<del> </del>	

m	s: <u> </u>	Species	Date 7/31/07	Abbrevi	ation
<u>ი</u>	2.5	BG	Adenostoma fasciculatum	Adfa	
. 5	5.05	Artr	Adenostoma sparsifolium	Adsp	Bare Ground = 3 ( Renotemon centranth
	5.65	B G	Arctostaphylos glauca	Argl	Kensteman centranthi
	6.35	<u> </u>	Artemisia californica	Arca	rec
		Artr. Erfa	Artemisia dallierilida Artemisia douglasiana	Ardo	
	6.85 7.45	Arty Lita	Artemisia tridentata	Artr	
			Baccharis salicifolia	BaSa	
		Jead Artr	Ceanothus cuneatus	Cecu	
	8.55 11.2	Erfa	Ceanothus leucodermis	Cele	
		Artr	Cercocarpus betuloides	Cebe	
	11.65	BG	Encelia farinosa	Enfa	
	12.45	Erfa			•
	13.70	Artr	Eriodictyon crassifolium	Ercr	
	15. 45	BG	Eriogonum fasciculatum	Erfa	
	16.8	Artr	Heteromeles arbutifolia	Hear	
	17.05	BG	Keckiella antirrhiniodes	Kean	
	1(-1	Artr	Keckiella ternata	Kete	
	15.4	BG	Lessingia filaginifolia	Lefi	
	18.8	Artv	Lotus scoparius	Losc	
	21,3	dead nicter al	Malacothamnus fasciculatus	Mafa	
	21.3	Artr	Mimulus aurantiacus	Miau	
	25.0	86	Plantago racemosa	Plra	
	Z5. 1	Pece	Populus fremontii	Pofr	
	25.9	Ro	Prosopus glandulosa	Prgl	
	26-1	Andr	Prunus ilicifolia	Pril	
	27.2	13G	Quercus agrifolia	Quag	2
	31.0	Artr	Quercus berberidifolia	Qube	/
	32.8	13 G	Rhamnus ilicifolia	Rhil	4
	33.5	Arti	Rhus ovata	Rhov*	
	35.4	86	Salix exigua	Saex	
	36.3	Antr	Salix laevigata	Sala1	
	36.6	Artr, Pece	Salix lasiolepis	Sala2	
	37-95	Arty	Salvia mellifera	Same1	
	38,3	36	Sambucus mexicana	Same2	
	40.	Artr.	Annuals.	OCL S	a. 1-22
	43.55	· r · · · · · · · · · · · · · · · · · ·	Lessingia glandulitera		······································
		Artr	Eriastrum sapphiripum	20	
	44.8		Pensteman centranthi	Tolius	
	45.	Artr	,		
	46	BG			
	46.3		Soils = sardy/soft/fr	iable	
	46.7	BC -	Topo = Flat		
	47.3				
	47.6		Note: Appears to be an	Grea w	nich was
	47. 9		disdurbed/grazed con	le kt inc	Ral Shook CH
	48.45		to Great Basin Scub		
	18.9	Artr	stopped. No sign of	ed Shan	coloniza time
	49.4	·i ·= · ·	after approx 15-20		The state of the s

Transect number: 3 mixed CH)
Observers: MB & C.E.

Date 8 | 1 | 0 | 2

From		Species	Species	Abbreviation
	45.5	Adfa	Adenostoma fasciculatum	Adfa
	46.15	86	Adenostoma sparsifolium	Adsp
	46.4	Adfa	Arctostaphylos glauca	Argl
	46.7	dead moterial	Artemisia californica	Arca
	46.85		Artemisia douglasiana	Ardo
	47.5	dead naturial	Artemisia tridentata	Artr
	48-9	Adfa	Baccharis salicífolia	BaSa
	50.0	dead material	Ceanothus cuneatus	Cecu
	<del>-   502.9</del>	12201	Ceanothus leucodermis	Cele
	<del></del>		Cercocarpus betuloides	Cebe
	1	· · · · · · · · · · · · · · · · · · ·	Encelia farinosa	Enfa
	<del>                                     </del>		Eriodictyon crassifolium	Ercr
	<del></del>		Eriogonum fasciculatum	Erfa
	<del></del>		Heteromeles arbutifolia	Hear
	<del>                                     </del>	<del> </del>	Keckiella antirrhiniodes	Kean
_	<del>-                                    </del>		Keckiella ternata	Kete
	<del>-  </del>		Lessingia filaginifolia	Lefi
			Lotus scoparius	Losc
			Malacothamnus fasciculatus	Mafa
		<u> </u>	Mimulus aurantiacus	Miau
			Plantago racemosa	Pira
	<del></del>	<u></u>	Populus fremontii	Pofr
	<del></del>		Prosopus glandulosa	Prgl
		<del></del>	Prunus ilicifolia	Pril
			Quercus agrifolia	Quag Qube
			Quercus berberidifolia	Rhil
			Rhamnus ilicifolia	Rhov
			Rhus ovata	
			Salix exigua	Saex
			Salix laevigata	Sala1
			Salix lasiolepis	Sala2
	!	<u> </u>	Salvia mellifera	Same1
			Sambucus mexicana	Same2
-			<u> </u>	
				<u>-</u>
<del></del>		<del>                                     </del>		
		<del> </del>		
		<del>-</del>		
	<del>-</del> - <del>  </del>	<del></del>		<del></del>
		<del></del>		
	<u> </u>			

bserve			Date <u>8-1-0-2</u>	
om	То	Species	Species	Abbreviation
0	.9	Aral	Adenostoma fasciculatum	Adfa B6 : Baregra
	1.6	Ercr , Aval	Adenostoma sparsifolium	Adsp
	1.3	Arg	Arctostaphylos glauca	Argl
	1.95	8 G	Artemisia californica	Arca
	12.7	Adfa, Aral	Artemisia douglasiana	Ardo
	4.0	FG	Artemisia tridentata	Artr
	5.7	Adfa	Baccharis salicifolia	BaSa
	5.85	Adfa, Argl	Ceanothus cuneatus	Cecu
	7.5	Aral	Ceanothus leucodermis	Cele
	8.4	Aral, Adfa	Cercocarpus betuloides	Cebe
	77-9	Arg	Encelia farinosa	Enfa
•	11-4	Aral. Adfa	Eriodictyon crassifolium	Ercr
	12.7	B.G. /litter	Eriogonum fasciculatum	Erfa
• • •	14-0	doad mater al	Heteromeles arbutifolia	Hear
	15.2	Aral	Keckiella antimhiniodes	Kean
	15-4	Tilky	Keckiella ternata	Kete
	15.5	Ercr	Lessingia filaginifolia	Lefi
	16-1	dead wood	Lotus scoparius	Losc
	19.9		Malacothamnus fasciculatus	Mafa
	21,3	Argl Alfa	Mimulus aurantiacus	Miau
	22.8	<u> </u>	Plantago racemosa	Pira
	23.0	Aral Adfa	Populus fremontii	Pofr
	23.4		Prosopus glandulosa	Prgl
	23.7	Aray Ada Erer Ada	Prunus ilicifolia	Pril
	Z6.0		Quercus agrifolia	Quag
		Aval	Quercus berberidifolia	Qube
	76-5	Ercy Argl	Rhamnus ilicifolia	Rhil
-	Zq.0	Argl	Rhus ovata	Rhov
	28.4 29.8	Argy, Adfa		Saex
		Aral, Ercr	Salix exigua	Sala1
	31,2	Adra, Aral	Salix laevigata	Sala2
		Adfa	Salix lasiolepis	•
	31.8	Opbor Adfa	Salvia mellifera	Same1
	32.5	Adra, Argl	Sambucus mexicana	Same2
	38.1	Hral	Opuntia basilaris	Opba
	38.7	ACSI Adta	·	<u> </u>
	39.7	Argl		<u> </u>
	140-2	AZ Adfa		<u> </u>
	141.2	Adla		
	142.6	B.G.		
	43.4	Adfa	<u> </u>	<del></del>
	144,5	Aral		<u></u>
	45.0	BG.		
	46.7			
	47.35	Arg Po fa		
	47.45	Aral Adfa Opba		· · · · · · · · · · · · · · · · · · ·
	50.0	Aral FAFA		

	t number:	<del></del>	Page 1  Date 8/1/02	$_{\rm of}$ $\frac{2}{2}$
rom	ers: <u>Œ '</u> To	M/S Species	Species	Abbreviation
6	0.3	5/2	Adenostoma fasciculatum	Adfa B6= 12 cre grau
<u> </u>	0.9	Same	Adenostoma sparsifolium	Adsp
_	2:1	Some 1 Foto	Arctostaphylos glauca	Argl
	10		Artemisia californica	Arca
	9.3	Same 1	Artemisia douglasiana	Ardo
	6.8	Down wood	Artemisia tridentata	Artr
	9.0	5th 110	Baccharis salicifolia	BaSa
		Frfa Adh	Ceanothus cuneatus	Cecu
	10.5	Ada	Ceanothus leucodermis	Cele
	10.8	B6	Cercocarpus betuloides	Cebe
	10.9	sone 1)	Encelia farinosa	Enfa
	11.25	Deal wood		Ercr
	12.75	Same!	Eriodictyon crassifolium	Erfa
	13.4	Some 1, Adfa	Eriogonum fasciculatum	
	16.0	I Anta	Heteromeles arbutifolia	Hear
	16.6	Adta Sme !	Keckiella antimhiniodes	Kean
	16.7	Mein c	Keckiella temata	Kete
	17.95	Song 1 Forth	Lessingia filaginifolia	Lefi
	183	F5/th	Lotus scoparius	Losc
	18.9	BL	Malacothamnus fasciculatus	Mafa
	19.7	Yuun	Mimulus aurantiacus	Miau
	21.8	Blan	Plantago racemosa	Pira
	76.8	Adr Mein	Populus fremontii	Pofr
	28.0	Ada Youth	Prosopus glandulosa	Prgl
	28.5	Ada	Prunus ilicifolia	Pril
	29 1	Ada Wint	Quercus agrifolia	Quag
	1915	A	Quercus berberidifolia	Qube
	29.95	Adto Yul	Rhamnus ilicifolia	Rhil
	38.1	tota Same	Rhus ovata	Rhov
	31.0	160	Salix exigua	Saex
	32.7	Adda .	Salix laevigata	Sala1
	34.1	Asta Youh	Salix lasiolepis	Sala2
	30 -		Salvia mellifera	Same1
	34.5	Yumh	Sambucus mexicana	Same2
	34.8	BG.	V 1 10	Yuwh
	35.4		Melica incertects	Mein
	120.0	17uh	I'Helica in-pecitati	7.16174
<del></del>	36.7	Your Erfa		<del></del>
·	36.5	Erfa		
	37.25	Erfa Youh		
	37.7	Erfa		
	38.5	<u> </u>		
_	38.95	1 / wh		<u></u>
	39.15	Etta Yum		<u> </u>
	39.3	136		
	40.0	Fra		
	191.5	36,		
	418	Yuuh		
	1115 /	Edu Yunh		

#### Line-Intercept Tansect Form

	t number:	<del>, , ,,,,,</del> ,	/(! -  i' -   Page	<b>2</b> of <u>2</u> .
Observe From	ers: <u>(</u> To	Species	Species	Abbreviation
FIOIII	. I		Adenostoma fasciculatum	Adfa
-	432	Elfa	Adenostoma sparsifolium	Adsp
	46.9	136		Argl
	48.2	Erta	Arctostaphylos glauca Artemisia californica	Arca
	48.5	Youh Fota		Ardo
	149.3	Your 1	Artemisia douglasiana	
	50.0	Yuch torton	Artemisia tridentata	Artr
		<u>'</u>	Baccharis salicifolia	BaSa
			Ceanothus cuneatus	Cecu
	_	· · · · · · · · · · · · · · · · · · ·	Ceanothus leucodermis	Cele
			Cercocarpus betuloides	Cebe
		· · · · · · · · · · · · · · · · · · ·	Encelia farinosa	Enfa -
			Eriodictyon crassifolium	Ercr
	_	·	Eriogonum fasciculatum	Erfa
		·	Heteromeles arbutifolia	Hear
		1	Keckiella antirrhiniodes	Kean
		·	Keckiella temata	Kete
	<u> </u>		Lessingia filaginifolia	Lefi
		<u> </u>	Lotus scoparius	Losc
		·	Malacothamnus fasciculatus	Mafa
			Mimulus aurantiacus	Miau
			Plantago racemosa	Plra
			Populus fremontii	Pofr
			Prosopus glandulosa	Prgl
			Prunus ilicifolia	Pril
			Quercus agrifolia	Quag
		1	Quercus berberidifolia	Qube
			Rhamnus ilicifolia	Rhìl
			Rhus ovata	Rhov
			Salix exigua	Saex
		<del>-</del>	Salix laevigata	Sala1
			Salix lasiolepis	Sala2
			Salvia mellifera	Same1
	<del> </del>	<del> </del>	Sambucus mexicana	Same2
	<del></del>	<del> </del>		
<u> </u>	-			
	<del> </del>	<del> </del>		·
		<del> </del>		
		<del> </del>		
	<del></del>	<del>-  </del>		
		+	<del> </del>	
		<del> </del>	<del></del>	
<b> </b>		<del></del>		
	<del></del>	<del>                                     </del>		<u> </u>
<del></del>	-	<u> </u>		
<del></del>	<del>-  </del>	<del>                                     </del>		
<del></del>			<del>  </del>	·
ļ		.	· · · · · · · · · · · · · · · · · · ·	
		<u> </u>		<u> </u>

erve m	rs: <u>()</u>  To	M()	Date <u>&amp; I/o</u>	_ of Abbreviat	ion
···	0.7	Den ved	Adenostoma fasciculatum	Adfa	B6 = Bcre gr
	0.85	Erfa	Adenostoma sparsifolium	Adsp	Jo - IJCIE EJ.
	0.85		Arctostaphylos glauca	Argi	
			Artemisia californica	Arca	
	2.2	Enter	Artemisia douglasiana	Ardo	
		136 Erfa	Artemisia tridentata	Art <b>r</b>	
	2.55	Erfor Adfor	Baccharis salicifolia	BaSa -	
	2.9	1 121	Ceanothus cuneatus	Cecu	
			Ceanothus leucodermis	Cele	
	9.8	Add Same!	Cercocarpus betuloides	Cebe	
	10.2	1917	Encelia farinosa	Enfa	
	$\frac{10.7}{1000}$	Ada Sove	Eriodictyon crassifolium	Ercr	
· · · · · ·	10.9	1	Eriogonum fasciculatum	Erfa	
	112.3	Ba Dead Vea	Heteromeles arbutifolia	Hear	•
	16.5	The state of the s	Keckiella antirrhiniodes	Kean	
	17.1	Adta some	Keckiella temata	Kete	
	18.9	Acta		Lefi	
	196	166	Lessingia filaginifolia	Losc	
	23,8	Adha	Lotus scoparius	Mafa	
	24.3	106	Malacothamnus fasciculatus	Miau	
	130.6	Hota	Mimulus aurantiacus	Pira	
	31,2	Adfa conel	Plantago racemosa	Pofr	
	95.3	A affi	Populus fremontii		
	35.7	Adta same	Prosopus glandulosa	Prgl Pril	
	38.0	Adta	Prunus ilicifolia		
	F1.6	Ada some	Quercus agrifolia	Quag Qube	
	42.5	Sme	Quercus berberidifolia	Rhil	
	43.3	Ada sare	Rhamnus ilicifolia		
_	44.2	Adio	Rhus ovata	Rhov	
	45.0	BG - Acad wag	Salix exigua	Saex	
	45,6	Adta	Salix laevigata	Sala1	
	146.0	Head year	Salix lasiolepis	Sala2	•
	48.2	Adra	Salvia mellifera	Same1	
	48.7	Same	Sambucus mexicana	Same2	
	49.5	Adda some			· · · · ·
	50.0	Ada			
_				<u>.</u>	
•					
			<u> </u>		
	1				
	-				
	· ·				

# Appendix G Wetland Delineation Report

### Jurisdictional Waters and Wetland Delineation Bautista Canyon Road Project California Forest Highway 224 Riverside County, California

Prepared for
County of Riverside
Transportation Department
P.O. Box 1605
Riverside, California 92502

Submitted by AMEC Earth & Environmental, Inc. 5510 Morehouse Drive San Diego, California 92121 (858) 458-9044

April 2003 Project No. 323021000-2013

#### **TABLE OF CONTENTS**

		ra de la companya de	age
1.0	EXEC	UTIVE SUMMARY	1.
2.0	INTRO	DDUCTION	1
	2.1	Project Setting	3.
3.0	METH	ODOLOGY	<b>4</b> .
4.0	RESU	LTS	<b>Z.</b> .
5.0	DISCU	JSSION/CONCLUSION	17
6.0	REFEI	RENCES	18
LIST C	OF FIGU	URES	
Figure	1 Lo	cation Map	2.
LIST C	OF TAB	BLES	
Table	1 Co	orps Jurisdictional Determination for the Bautista Canyon Road Project	8
LIST C	OF APP	PENDICES	
Appen	dix A	Jurisdictional Waters and Wetland Delineation Maps	
Appen	dix B	Routine Wetland Delineation Forms	
Appen	dix C	Waters and Wetland Photographs	

#### 1.0 EXECUTIVE SUMMARY

Project: Bautista Canyon Road Project

Project Proponent: County of Riverside

**Transportation Department** 

P.O. Box 1605

Riverside, CA 92502

Principle Investigator: AMEC Earth & Environmental, Inc.

5510 Morehouse Drive

San Diego, California 92121

(858) 458-9044

AMEC Earth & Environmental, Inc. (AMEC) conducted a Clean Water Act (CWA), Section 404 jurisdictional waters and wetland delineation of the 8.2-mile Bautista Canyon Road Project study corridor. Within the corridor, approximately 23.05 acres of waters of the U.S. were identified, including 21.19 acres of wetlands. This report will be used to request a Jurisdictional Determination for waters of the U.S. from the U.S. Army Corps of Engineers (Corps). A verification of this delineation was conducted in the field on 27 January 2003 with the Corps, AMEC, the County of Riverside, and the Federal Highway Administration (FHWA). This document has been updated to reflect the minor revisions made during the verification. An impact analysis was not conducted. The location and extent of jurisdictional areas within the study corridor will be used to design the road improvements to maximize avoidance of wetlands Based on the presence of jurisdictional areas within the study corridor, the project will likely require a Section 404 permit and a Section 401 water quality certification.

#### 2.0 INTRODUCTION

AMEC) conducted a CWA, Section 404, jurisdictional waters and wetland delineation of the Bautista Canyon Road Project corridor in western Riverside County, California (Figure 1). The project proposes to reconstruct an approximately 8.2-mile section of the existing Bautista Canyon Road between the Hemet and Anza. The northern terminus of the project is at the Bautista Conservation Camp at a point 10.3 miles southeast of Valle Vista and the southern

1

### Figure 1

terminus is at a point 3.2 miles northwest of SH 371 in the Anza Valley. This investigation included an approximately 400-foot wide corridor along the existing Bautista Canyon Road. The purpose of this assessment was to quantify the areas within the project study corridor that are subject to the jurisdiction of the Corps and to describe the wetlands and non-wetland waters of the U.S. within this area.

#### 2.1 Project Setting

The Bautista Canyon Road project corridor is located in the canyon between Hemet and Anza in Riverside County, California. Bautista Canyon Road is an approximately 20-foot-wide dirt road that is proposed for reconstruction along 8.2 miles to meet standard design specifications. Alternative road alignments are being investigated that vary based on design speeds and avoidance of sensitive resources.

The predominate land owner along the 8.2-mile section is the U.S. Forest Service (USFS). In the southern section of the corridor near Anza, the road right-of-way passes through private land characterized by large lot, rural residential development with grazing. Aside from the private land in the Anza Valley, a majority of the land adjacent the existing dirt road is native vegetation. Bautista Creek flows from south to north down the canyon, from Anza towards Hemet. The existing Bautista Canyon Road crosses numerous tributaries to Bautista Creek and one main crossing of Bautista Creek. The upland vegetation in the northern section of the project corridor includes mixed chaparral and redshank chaparral and in the southern section includes sagebrush scrub. The major drainages, including Bautista Creek, are characterized by southern willow scrub with patches of cottonwood willow riparian forest. All vegetation communities, except where disturbed by development or grazing on the private lands, are undisturbed.

The project study corridor slopes generally southeast to northwest, with the southern terminus at approximately 4,120 feet above mean sea level and the northern terminus at approximately 2,800 feet above mean sea level. The existing roadway lies at generally the same elevation as Bautista Creek in the northern and southern sections of the project corridor. In the middle section of the project corridor, the roadway climbs as much as approximately 200 feet out of the canyon along the canyon slopes. The underlying material of a majority of the study corridor is

decomposed granite. This fragmented rock and sand are highly erosive and easily transported during rain events. No soils survey is available for this portion of Riverside County.

#### 3.0 METHODOLOGY

The Corps regulates the discharge of fill material into waters of the U.S. Waters of the U.S. include wetlands and non-wetland water bodies meeting specific criteria. Non-wetland waters of the U.S. are typically regulated as jurisdictional by the Corps if the drainage exhibits at least intermittent flow. Evidence of intermittent flow typically includes the formation of bed and bank, debris deposits, and scoured channels. Corps jurisdiction over non-wetland waters of the U.S. extends to the ordinary high water mark (OHWM) of the feature. As defined by Corps regulations, waters of the U.S. include these traditional drainage features, as well as a range of other waters, as follows:

- All interstate waters, including interstate wetlands,
- All other waters, including intrastate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, for which the use, degradation or destruction of could affect interstate or foreign commerce,
- All impoundments of waters that fit the description,
- Tributaries to any defined waters,
- Territorial seas, and
- Wetlands adjacent to waters.

#### The Corps defines wetlands as:

those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstance do support, a prevalence or vegetation typically adapted to life in saturated soil conditions.

Section 404 of the CWA defines an area as a jurisdictional wetland if it possesses all three of the following wetland attributes:

- 1. Hydrophytic Vegetation,
- 2. Wetland Hydrology, and
- 3. Hydric Soils.

Areas were evaluated in the field for these wetland characteristics according to the methods defined in the 1987 Corps of Engineers Wetland Delineation Manual. Hydrophytic vegetation are defined as plant species that grow and are adapted to the conditions of permanently or periodically saturated soils. The presence or absence of hydrophytic vegetation was determined by developing a list of plant species present within the area in question, determining the dominance of each species within each strata (tree, shrub, and herb), and determining the wetland plant indicator status of each species. Wetland plant indicator status was obtained from the U.S. Fish and Wildlife Service (USFWS) National List of Plant Species That Occur in Wetlands: California (Reed 1988). If more than 50 percent of the dominant vegetation species were classified as obligate, facultative wet, or facultative, then hydrophytic vegetation was determined to be present.

Wetland hydrology was determined by several factors, including the presence of water in the soil pit, presence of saturated soils, presence of ponded surface water, drift lines, sediment deposits, and drainage patterns within a wetland. Secondary hydrology indicators include oxidized root channels, water stained leaves, and local soils survey data. No recorded flow data was available for the site, but aerial photos were used as an indication of wetland hydrology.

Hydric soils are flooded, ponded, or saturated for a period during the growing season sufficient to develop anaerobic conditions in the upper layers, favoring the growth of hydrophytic vegetation. Soils must meet at least one of the following criteria to be considered hydric:

- 1. Classified as organic soils (Histosols, except the Folists),
- 2. Exhibits a histic epipedon,
- 3. Contains sulfidic materials,
- 4. Exhibits a moisture regime that is aquic or peraquic,
- 5. Exhibits reducing soil conditions,
- 6. Exhibits the gleyed soil color or low matrix color,
- 7. Listed on a hydric soils list.

For sandy soils, hydric soils can sometimes be determined by the presence of high organic matter in the surface horizon or streaking of organic matter in the subsurface layers.

In many cases, soil color is the most diagnostic field tool for determining the presence of hydric soils. Soil color was determined by digging a soil pit to a depth of 16 inches and determining the matrix, chroma, and hue of the soil sample of each horizon with Munsell® Soil Color Charts. If the soil was gleyed, had no mottles and a chroma of one or less, or if mottles were present and the chroma was two or less, the soil was determined to be hydric. In cases where the soils were sand or recently deposited river sand, a problem area or natural atypical situation occurs where it is not possible to determine soil color. In these cases, the 1987 Corps manual does not require soils pits and jurisdictional wetlands were delineated based on other indicators of hydric soils, the indicators of hydrophytic vegetation and wetland hydrology, and professional judgment.

AMEC scientists Mike Wilcox, Nathan Moorhatch, and Mike Howard conducted a survey of jurisdictional wetlands and waters of the U.S. for the Bautista Canyon Road Project. Preliminary surveys of the jurisdictional areas were conducted during the spring and fall of 2001. Mike Howard conducted drainage specific investigations on 21 February, 27 February, and 5 March, 2002. Prior to field surveys, topographic maps, current aerial photographs, and information from the preliminary surveys were consulted to identify potential wetland areas. Wetland delineations were conducted according to the 1987 Corps Manual, as described above. A determination of wetland functions and values was not completed, however information was collected that could facilitate a qualitative assessment of functions and values. A routine wetland determination was conducted because the wetland areas were less than 5 acres in size and occurred in small patches. Data sheets collected during the investigation are included as Appendix B, and photographs are included in Appendix C.

In addition to performing jurisdictional wetland determinations, non-wetland waters of the U.S. were also mapped. Non-wetland waters of the U.S. are defined as primarily unvegetated channels that are currently used, were used, or may potentially be used in interstate or foreign commerce, including intermittent streams. Length and width (measured as the width of the ordinary high water mark) data for non-wetland waters of the U.S. within the project study area were recorded and mapped.

Drainages and wetlands were numbered consecutively north to south. Data sheets were completed for wetlands and non-wetland waters within the survey corridor. Data sheets were not completed for wetlands or drainages that would not be impacted, or for those areas that appeared similar in vegetation, hydrology, and soils to wetlands or drainages for which data sheets has already been completed. Wetland boundaries and drainages were mapped on 1:200 scale orthorectified aerial photography. All wetlands and potential waters of the U.S. observed within the approximately 400-foot-wide survey corridor were mapped.

All wetland areas identified in the study corridor were grouped into wetland types based on the dominant species in the wetland and the structure of the community. The Holland classification system was used to characterize the various wetland communities in the study corridor (Holland, 1986).

#### 4.0 RESULTS

A total of 44 drainages exhibiting bed and bank and 15 jurisdictional wetland areas were identified within the study corridor. The limits of jurisdictional waters and wetlands mapped are shown in Appendix A, Figures 1 through 8. Table 1 lists the jurisdictional determination for all areas within the Bautista Canyon Road Project. Dataforms of wetlands and non-wetland waters areas within the study corridor are provided in Appendix B and photographs are included in Appendix C. The results of this delineation were verified in the field by the Corps on 27 January 2003. All revisions made during the field verification have been incorporated into the results in this document.

#### Drainage 1

Drainage 1, known as Horse Creek, is a wide ephemeral non-wetland waters at the northernmost end of the survey corridor. This dry wash is characterized by upland vegetation species and sandy substrate. Only a portion of the drainage occurs within the study area. The average width is 35 feet, the length within the corridor is 198.6 feet, and the acreage within the corridor is 0.18 acres.

Table 1 **Corps Jurisdictional Determination** For The Bautista Canyon Road Project¹

				Waters	Wetland Type ³	Wetlands
Feature	Length (ft)	Width (ft)	Type ²	(acres)	(Polygon Number)	(acres)
Drainage 1	198.6	35	E	0.18	<del>-</del>	0
Drainage 2	274.9	6	Ε	0.04	-	0
Drainage 2a	156.5	2	E	0.01		
Drainage 3	223.4	6	E	0.04		0
Drainage 4	603.4	6	E E E	0.09		0
Drainage 5	410.8	6	E	0.06	<del></del>	0
Drainage 6	1,003.3	3	E	0.17		0
Drainage 7	535.3	6	E	0.07	<del></del>	0
Drainage 8⁴	170.4	27	1	0.12		0
Drainage 9 ⁴	52.4	8	1	0.015	CWR/SWS (1)	1.16
Ū					CWR (2, 3)	0.28
Drainage 10	145.1	6	I	0.03	SWS (5)	0.02
Drainage 11	1,105.9	4	Ė	0.024	CWR/SWS (4)	0.29
Drainage 12	576.9	2	Ē	0.03	-	0
Drainage 13	1,304.9	8	· F	0.25	CWR/SWS (6)	0.11
Drainage 14	1,682.2			0.08	-	0
Drainage 15	337.3	2 2 2 2	Ē	0.02		ŏ
Drainage 16	392.7	2	Ē	0.02	_	ŏ
Drainage 17	375.7	5	Ė	0.02	<del></del>	ő
Drainage 18	241.6	2	=	0.02	<del>-</del>	Ö
Drainage 19	500.6	2	E	0.01	<b></b>	0
•	637.4	2	E		-	
Drainage 20		2	Ē	0.03	-	0 0
Drainage 21	338.8	3	Ē	0.02	-	0
Drainage 22	335.4	3	Ē	0.02	<del>-</del>	
Drainage 23	374.8	3	Ē	0.03	<del></del>	0
Drainage 24	312.0	2 3	E	0.02		0
Drainage 25	179.2	3		0.01	<del></del>	0
Drainage 26	324.1	2 3	Ē	0.02	<del></del>	0
Drainage 27	408.7	3	E	0.03	_	0
Drainage 28	743.7	2	E	0.03	. <del></del>	0
Drainage 29	226.4	2	E	0.01		0
Drainage 30	146.5	3	E	0.01		0
Drainage 31	339.7	2	E	0.02	-	0
Drainage 32	268.6	3	Ę	0.02		0
Drainage 334	459.8	8	1	0.09	CWR (7)	18.02
					SWS (8, 9, 10)	0.91
		_	_		FWS (S1, S2, S3, S4, S5)	0.41
Drainage 34	419.7	8	E	0.07	<del>-</del>	0
Drainage 35	83.1	3	Ε	0.01	. <del></del>	0
Drainage 36	347.1	4	E	0.03	-	0
Drainage 37	274.7	3	E	0.02	<del>-</del>	0
Drainage 38	336.6	10	Ε	0.06	<del></del>	0
Drainage 38a	259.9	6	Ε	0.06		0
Drainage 39	300.7	2	E	0.01	<del>-</del>	0
Drainage 40	56.4	2	E	0.003	-	0
Drainage 41	311.0	3	E	0.02	-	Õ
	1,093.9	3	Ē	0.08		Ŏ
Drainage 42	1,033.3	J				

¹ Acreages reflect the jurisdictional areas shown on Figures 1-8 and have been verified by the U.S. Army Corps of Engineers during a site visit on 27 January 2003.

² E=Ephemeral, l=Intermittent

³ SWS=Southern Willow Scrub, CWR=Cottonwood Willow Riparian, FWS=Freshwater Seep

⁴Bautista Creek

⁵Totals may not sum due to rounding

Drainage 2 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 6 feet, the length within the survey corridor is 274.9 feet, and the acreage within the survey is 0.04 acres.

#### Drainage 2a

Drainage 2a is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 156.5 feet, and the acreage within the corridor is 0.01 acres.

#### **Drainage 3**

Drainage 3 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 6 feet, the length within the survey corridor is 223.4 feet, and the acreage within the corridor is 0.04 acres.

#### Drainage 4

Drainage 4 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 6 feet, the length within the survey corridor is 603.4 feet, and the acreage within the corridor is 0.09 acres.

#### Drainage 5

Drainage 5 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 6 feet, the length within the survey corridor is 410.8 feet, and the acreage within the corridor is 0.06 acres.

#### Drainage 6

Drainage 6 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 1,003.3 feet, and the acreage within the corridor is 0.17 acres.

Drainage 7 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 6 feet, the length within the survey corridor is 535.3 feet, and the acreage within the corridor is 0.07 acres.

#### **Drainage 8**

Drainage 8 is a short bend of Bautista Creek that falls within the survey corridor. The existing roadway does not cross the creek at this location. The creek at this location is classified as an intermittent non-wetland waters of the U.S. The average width is 27 feet, the length within the survey corridor is 170.4, and the acreage within the corridor is 0.12 acres.

#### Drainage 9

Drainage 9 is a section of Bautista Creek within the survey corridor. An unculverted crossing is located where the existing roadway crosses the creek at this location. This section of Bautista Creek is a jurisdictional wetland classified as a mature cottonwood-willow riparian forest (wetland polygon 1). Dominant species of the riparian wetland include Salix lasiolepis, Baccharis salicifolia, and Artemisia douglasiana. Scattered Populus fremontii, Platanus racemosa, and Juncus textilis also occur within the floodplain. The acreage of jurisdictional wetland within the corridor at this location is 1.16 acres. In addition, two large jurisdictional wetlands (wetland polygons 2 and 3) occur within the floodplain of the creek in this section. These wetlands are characterized by an understory of nearly pure stands of J. textilis, with A. douglasiana and Muhlenbergia rigens beneath a canopy of P. fremontii. The acreage of these two wetlands is 0.28 acres.

#### Drainage 10

Drainage 10 is an intermittent waters of the U.S. with a small patch of southern willow scrub (wetland polygon 5). The average width of the drainage is 6 feet, the length within the survey corridor is 145.1 feet, and the acreage of non-wetland waters is 0.03 acres. The jurisdictional wetland is composed of *B. salicifolia* and *A. douglasiana* with a few scattered *Salix* individuals. The jurisdictional wetland acreage is 0.02 acres.

Drainage 11 is an ephemeral non-wetland waters characterized upland vegetation species and sandy substrate. The average width is 4 feet, the length within the survey corridor is 1,105.9 feet, and the acreage within the corridor is 0.02 acres. This drainage feeds into Bautista Creek and approximately 0.29 acres of jurisdictional wetland classified as cottonwood willow riparian forest (wetland polygon 4) occurs near the confluence area within the survey corridor.

#### Drainage 12

Drainage 12 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 576.9 feet, and the acreage within the corridor is 0.03 acres.

#### Drainage 13

Drainage 13 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 8 feet, the length within the survey corridor is 1,304.9 feet, and the acreage within the corridor is 0.25 acres. A small area of jurisdictional wetland (wetland polygon 6) associated with Bautista Creek occurs within the survey corridor near Drainage 13 and covers 0.11 acres.

#### Drainage 14

Drainage 14 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 1,682.2 feet, and the acreage within the corridor is 0.08 acres.

#### Drainage 15

Drainage 15 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 337.3 feet, and the acreage within the corridor is 0.02 acres.

Drainage 16 is an ephemeral not-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 392.7 feet, and the acreage within the corridor is 0.02 acres.

#### Drainage 17

Drainage 17 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 375.7 feet, and the acreage within the corridor is 0.02 acres.

#### Drainage 18

Drainage 18 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 241.6 feet, and the acreage within the corridor is 0.01 acres.

#### Drainage 19

Drainage 19 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 500.6 feet, and the acreage within the corridor is 0.02 acres.

#### Drainage 20

Drainage 20 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 637.4 feet, and the acreage within the corridor is 0.03 acres.

#### Drainage 21

Drainage 21 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 338.8 feet, and the acreage within the corridor is 0.02 acres.

Drainage 22 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 335.4 feet, and the acreage within the corridor is 0.02 acres.

#### **Drainage 23**

Drainage 23 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 374.8 feet, and the acreage within the corridor is 0.03 acres.

#### Drainage 24

Drainage 24 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 312.0 feet, and the acreage within the corridor is 0.02 acres.

#### **Drainage 25**

Drainage 25 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 179.2 feet, and the acreage within the corridor is 0.01 acres.

#### Drainage 26

Drainage 26 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 324.1 feet, and the acreage within the corridor is 0.02 acres.

#### Drainage 27

Drainage 27 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 408.7 feet, and the acreage within the corridor is 0.03 acres.

Drainage 28 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 743.7 feet, and the acreage within the corridor is 0.03 acres.

#### Drainage 29

Drainage 29 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 226.4 feet, and the acreage within the corridor is 0.01 acres.

#### **Drainage 30**

Drainage 30 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 146.5 feet, and the acreage within the corridor is 0.01 acres.

#### Drainage 31

Drainage 31 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 339.7 feet, and the acreage within the corridor is 0.02 acres.

#### Drainage 32

Drainage 32 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 268.6 feet, and the acreage within the corridor is 0.02 acres.

#### Drainage 33

Drainage 33 is a section of Bautista Creek within the survey corridor. An unculverted crossing is located where the existing roadway crosses one fork of the creek at the intersection with the road leading to Tripp Flats. The upstream northern fork of the creek at this location is considered an intermittent non-wetland waters with an average width of 8 feet, a length of 459.8 feet, and an acreage of 0.09 acres. The upstream southern fork is a jurisdictional wetland classified as southern willow scrub dominated by pure stands of *S. lasiolepis* (wetland polygon

9 and 10). This wetland area covers 0.81 acres. Another tributary considered a jurisdictional southern willow scrub wetland occurs just north of the Tripp Flats Road (wetland polygon 8). This area is a diverse assemblage of *S. lasiolepis*, *Scirpus microcarpus*, *Juncus* spp., and *Muhlenbergia rigens*. The total acreage of this patch is 0.10 acres. These upstream forks and tributaries feed into the main reach of Bautista Creek north of the Tripp Flats Road. This reach of the creek is a jurisdictional wetland classified as a mature cottonwood willow riparian forest similar to the riparian community found at the creek crossing of Drainage 9. The total acreage of jurisdictional wetland in this reach of the creek within the corridor is 18.02 acres (wetland polygon 7).

A series of five jurisdiction wetlands classified as freshwater seeps occur on the opposite side of the existing roadway from Bautista Creek at this location. These freshwater seeps receive hillside subsurface flows during the growing season sufficient to support a prevalence of hydrophytic vegetation. Dominant species in these seeps include *J. textilis*, *S. exigua*, and *A. douglasiana*. The total jurisdictional acreage of freshwater seep is 0.41 acres (wetland polygon S1 = 0.04 acres, wetland polygon S2 = 0.07 acres, wetland polygon S3 = 0.03 acres, wetland polygon S4 = 0.21 acres, and wetland polygon S5 = 0.06 acres).

#### Drainage 34

Drainage 34 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 8 feet, the length within the survey corridor is 419.7 feet, and the acreage within the corridor is 0.07 acres.

#### Drainage 35

Drainage 35 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 83.1 feet, and the acreage within the corridor is 0.01 acres.

#### Drainage 36

Drainage 36 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 4 feet, the length within the survey corridor is 347.1 feet, and the acreage within the corridor is 0.03 acres.

Drainage 37 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 274.7 feet, and the acreage within the corridor is 0.02 acres.

#### **Drainage 38**

Drainage 38 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 10 feet, the length within the survey corridor is 336.6 feet, and the acreage within the corridor is 0.06 acres.

#### Drainage 38a

Drainage 38a is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 6 feet, the length within the survey corridor is 259.9 feet, and the acreage within the corridor is 0.06 acres.

#### Drainage 39

Drainage 39 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 300.7 feet, and the acreage within the corridor is 0.01 acres.

#### Drainage 40

Drainage 40 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 2 feet, the length within the survey corridor is 56.4 feet, and the acreage within the corridor is 0.003 acres.

#### Drainage 41

Drainage 41 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 311.0 feet, and the acreage within the corridor is 0.02 acres.

Drainage 42 is an ephemeral non-wetland waters characterized by upland vegetation species and sandy substrate. The average width is 3 feet, the length within the survey corridor is 1,093.9 feet, and the acreage within the corridor is 0.08 acres.

#### 5.0 DISCUSSION/CONCLUSION

The Bautista Canyon project area is comprised of a 8.2-mile linear corridor that runs the length of Bautista Canyon, centered approximately on the existing dirt roadway. For this reason, the results of this jurisdictional waters and wetland delineation include numerous tributaries to Bautista Creek. The majority of these tributaries are narrow, ephemeral waters of the U.S. that carry flows only during and immediately following a rain event. These drainages generally exhibit a defined bed and bank and are unvegetated or have upland vegetation. Roadway crossings of these drainages were both culverted and unculverted. Although the jurisdictional determination on these narrow ephemeral non-wetland waters remains at the discretion of the Corps, they are identified as jurisdictional in this report based on the presence of bed and bank, evidence of flow, and because they are immediate tributaries to Bautista Creek.

The wetland areas within the survey corridor occur in association with Bautista Creek or with intermittent tributaries to Bautista Creek. Bautista Creek, Drainage 9 and Drainage 33, is generally characterized as a mature riparian woodland with intermittently flowing water. The upstream forks and intermittent tributaries to Bautista Creek are generally less developed riparian wetlands dominated by *Salix* and *Baccharis* scrub.

The substrate of the drainages and the uplands in a majority of the study area was sand deposits and decomposed granite. Soil pits were dug in numerous locations during the wetland delineation that revealed sand at a depth greater than 18 inches. Sandy soils typically do not develop the chroma and hue required for determination of hydric conditions. In addition, little soil development or organic material accumulation was observed. Sandy soils occurred in most locations within the survey corridor. In these situations, soils were not used as a determining criterion, as specified under the problem area and natural atypical situation guidelines in the 1987 Corps Manual.

Project impacts have not been included in this report because the alternative road alignments are currently being designed. The location and extent of the wetlands reported here have been provided to the design team to ensure avoidance of wetlands, where practicable. The results of this delineation have been field verified by the Corps. The project proponent will consult with the Corps and other regulatory agencies during the permitting process for this project. The project will require regulatory permits under sections 401 and 404 of the CWA for any impacts to jurisdictional waters or wetlands.

#### 6.0 REFERENCES

Environmental Laboratory. 1987. Corps of Engineers wetland delineation manual. Technical Report Y-87-1. U.S. Army Engineers Waterways Experiment Station. Vicksburg, MS.

Holland, R.F. 1986. Preliminary description of the terrestrial natural communities of California. State of California, The Resources Agency.

Munsell. 1975. Munsell Soil Color Charts. Koll Morgen Corporation. Baltimore, MD.

Reed, P.B. 1988. National list of plant species that occur in wetlands: California. U.S. Fish and Wildlife Service, Biological Report 88 (26.10). 135 pp.

# Appendix A Jurisdictional Waters and Wetland Delineation Maps

### Appendix B Routine Wetland Delineation Forms

## Appendix C Waters and Wetland Photographs



Drainage 1 - East

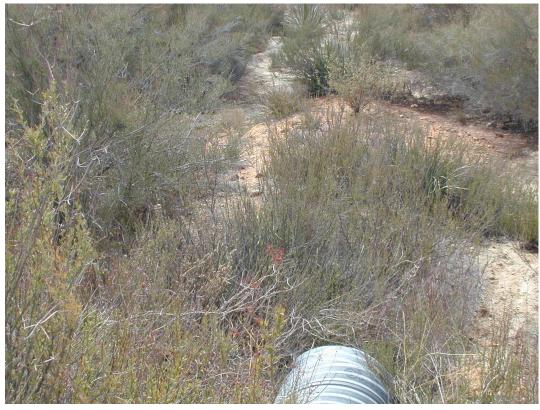




Drainage 2 - West



APPENDIX



Drainage 3 - West



APPENDIX



Drainage 4 - West





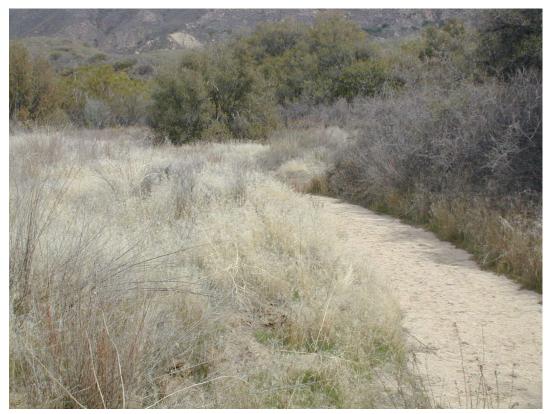
Drainage 5 - West 1





Drainage 6 - West





Drainage 7 - East



Drainage 7 - West



Bautista Canyon
Jurisdictional Waters and Wetland Delineation

APPENDIX

7



Drainage 9 - East 1



Drainage 9 - East 2



Bautista Canyon
Jurisdictional Waters and Wetland Delineation

APPENDIX

8



**Drainage 9 - Juncus Meadow** 





Drainage 10 - West



Drainage 10 - West Upstream



Bautista Canyon
Jurisdictional Waters and Wetland Delineation

APPENDIX

10



Drainage 11 - West





Drainage 12 - West





Drainage 13 - West





Drainage 15 - East





Drainage 16 - East





Drainage 17 - East





Drainage 18 - East





Drainage 19 - East





Drainage 20 - East





Drainage 21 - East





Drainage 22 - West





Drainage 23 - West





Drainage 24 - West





Drainage 25 - East





Drainage 26 - East





Drainage 27 - East





Drainage 28 - West





Drainage 29 - West





Drainage 31 - West





Drainage 32 - West





Drainage 34 - West





Drainage 36 - West





Drainage 38 - West





Drainage 39 - West





Drainage 40 - West





Drainage 41 - West





Drainage 42 - East





Bautista Creek - East 1, Wetland 7



Bautista Creek - East 2, Wetland 7



Bautista Canyon
Jurisdictional Waters and Wetland Delineation

APPENDIX

38



Wetland 8 - West





Wetland 10 - West





Seep 2 - West





Seep 4 - West





Seep 5 - West



# Appendix H Wetland Mitigation Memorandum



# Preliminary Wetland/Riparian Mitigation Program Bautista Canyon Road Project

# Prepared for: County of Riverside Federal Highway Administration

#### March 2004

#### 1.0 INTRODUCTION

This report summarizes the preliminary wetland mitigation strategy for the Bautista Canyon Road Project. From the beginning of the planning process for this project, the objective has been to avoid and minimize impacts to sensitive resources, including wetlands. Surveys for these resources, including vegetation mapping and a formal wetland delineation, were conducted early in the process to provide the design team with information on the biological constraints of the canyon. To the maximum extent practicable, the three alternative alignments avoid and minimize impacts to wetlands and riparian areas. Because this is a linear project located in a canyon, some impacts to jurisdictional wetlands and riparian areas are unavoidable. For these unavoidable impacts, the following wetland/riparian mitigation program has been developed. This report summarizes the unavoidable impacts from the project, the mitigation strategy developed for the project, and the potential sites and methods for the proposed mitigation.

#### 2.0 UNAVOIDABLE PROJECT IMPACTS

A summary of the unavoidable impacts to jurisdictional areas and non-jurisdictional riparian communities is provided in Table 1. The objective of the wetland mitigation program will be to mitigate these impacts, both in terms of acreage and function.

Table 1
Jurisdictional and Non-jurisdictional Wetland/Riparian Impact Assessment
for the Bautista Canvon Road Project Alternative Alignments

	40 km/h Impact (acres)	55 km/h Impact (acres)	Combo Impact (acres)
Jurisdictional Areas			
Jurisdictional wetlands -Southern willow scrub	0.17	0.12	0.16
-Seeps	0.16	0.06	0.16
Jurisdictional non-wetland waters of the U.S.	0.32	0.38	0.35
Jurisdictional Impact Total	0.65	0.54	0.67
Non-Jurisdictional Riparian Vegetation			
Southern cottonwood willow riparian forest	0.77	0.66	0.31
Southern willow scrub	0.17	0.10	0.20
Non-Jurisdictional Impact Total	0.94	0.76	0.51
Total Wetland/Riparian Impact	1.59	1.30	1.18

Source: FHWA impact calculations based on AMEC biological data and FHWA alignment data. Calculations run in November 2003 for wetlands, seeps, and non-jurisdictional vegetation and in February 2004 for non-wetland waters of the U.S.

#### 3.0 MITIGATION STRATEGY

This strategy and approach for mitigating unavoidable impacts to jurisdictional wetlands, non-wetland waters of the U.S., and non-jurisdictional riparian areas has been iteratively developed by the County of Riverside, the Federal Highway Administration (FHWA), the U.S. Forest Service (USFS), and consulting biologists. The overall mitigation strategy for this project would be to replace lost wetland and riparian functions, values, and acreage within Bautista Creek.

A formal functional assessment has not been developed for this project, however information was collected to provide an informal assessment of functions and values. Overall, the wetlands and riparian areas in the study corridor all provide high to very high hydrological, chemical, and biological functions. The riparian areas and wetlands in the canyon are relatively pristine examples of cottonwood willow riparian forest, southern willow scrub, and freshwater seep communities. Bautista Canyon is a natural, undeveloped area with little disturbance. These riparian communities and wetlands provide excellent "reference wetlands" for high to very high functions and values. Hydrological functions provided by the riparian and wetland areas of Bautista Canyon include floodflow alteration, sediment retention, and groundwater recharge. Chemical functions provided by the riparian and wetland areas of Bautista Canyon include nutrient transformation, nutrient cycling, production export, and water quality maintenance. Biological functions provided by the riparian and wetland areas of Bautista Canyon include wildlife diversity and abundance (including sensitive wildlife species), wildlife breeding, wildlife migration, wildlife wintering, wildlife diversity, plant diversity (including sensitive plant species), and Additionally, the riparian and wetland areas of Bautista Canyon provide social functions and values by supporting plant species that were historically harvested by Native Americans and as the historic route of Juan Bautista de Anza.

Unavoidable impacts to these valuable riparian and wetland resources are considered significant. This mitigation program is designed to compensate for the impacted wetland and riparian acreage and replace the lost functions through a combination of wetland and riparian creation, restoration, and enhancement.

Unavoidable impacts to wetlands and riparian areas should be mitigated, to the maximum extent practicable, within the watershed at the preferred locations within the study corridor on Bautista Creek.

#### 4.0 WETLAND MITIGATION SITES AND METHODS

Two mitigation site reconnaissance field surveys were conducted to identify potential mitigation options. The first survey was conducted January 22, 2003. The second survey was conducted December 4, 2003. AMEC followed a sequence to identify and prioritize mitigation sites for this project that first looked at on-site in-kind options, then off-site (but still in Bautista Canyon) in-kind options, and finally offsite out-of-kind options. AMEC consulted with the County and with the USFS to identify potential mitigation sites.

Because the impact acreage is relatively small (Table 1), it is anticipated that the required mitigation for these impacts could likely be implemented completely within Bautista Canyon. This may include a combination of on-site and off-site locations, all located on Bautista Creek and its immediate tributaries. The following list summarizes the identified locations for mitigation in Bautista Canyon. The opportunities, constraints, and mitigation methods to be used at each site is summarized. The acreage and square footage estimates are approximations. The site numbers and summaries are listed as they occur from north to south (i.e., downstream to upstream).

#### 4.1 Site 1: Downstream Tamarisk Removal Section - Off-site Riparian Enhancement

A section of Bautista Creek from Forest Highway (FH) 224 milepost 6 to milepost 8.5 has a substantial salt cedar infestation. Salt cedar (*Tamarisk* spp.) is an invasive riparian tree species. Tamarisk removal in this section of Bautista Creek would enhance the habitat value of the riparian vegetation. The downstream portion of this section (near milepost 6) is characterized as alluvial scrub, whereas the upstream portion (near Hixon Trail around milepost 7) is mature cottonwood willow forest. The individual tamarisks are small to medium and estimated at over 1,200 individuals in this section. These individuals are dense in some areas and scattered in other areas. Because this section of Bautista Creek supports several sensitive species including San Bernardino kangaroo rat, southwestern willow flycatcher, arroyo toad, and the slender-horned spineflower, the benefits of tamarisk removal should be weighed against the potential impacts to sensitive plants and wildlife. Because the conservation value of this area is high, heavy equipment and herbicide application should not be used or should be limited and focused. Manual labor crews would be the preferred control method. A qualified biologist should map appropriate areas for exotic control and monitor all exotic removal activities. Coordination with the USFS would be necessary to implement any enhancement or restoration at this location. Figure 1 shows photos of this site.

#### 4.2 Site 2: Arizona Crossing - On-site, In-kind Restoration

This is the location where the existing roadway crosses Bautista Creek at a low-water crossing. All three alternative alignments for the proposed road would abandon this crossing location and would cross Bautista Creek with a bridge. The small area of existing dirt road that crosses the creek and the small parking area at the crossing could be restored.

Based on a preliminary sketch of this location prepared by FWHA, approximately 1,000 square feet ([ft²], 0.02 acre) of cottonwood willow riparian forest could be restored at this location. It is anticipated that this location could support both jurisdictional riparian wetland restoration (in the immediate vicinity of Bautista Creek) and non-jurisdictional riparian restoration (on the slopes and floodplain of the channel). In-kind restoration of the site would include planting cuttings from adjacent willows (Salix lasiolepis, S. exigua) and mulefat (Baccharis salicifolia) and containers of Fremont cottonwood (Populus fremontii). Seeding of the site with appropriate understory species may also be used. A moderate level of natural revegetation from the adjacent vegetation is expected at this location, which would augment the plantings. No supplemental irrigation is proposed at this location. Mitigation monitoring would be a component of the mitigation program at this location. Coordination with the USFS would be necessary to implement any restoration at this location. Figure 2 shows photos of this site.

#### 4.3 Site 3: Cottonwood Canyon - On-site, In-kind Restoration

This location includes portions of Bautista Creek where the existing roadway is currently within the floodplain and immediately adjacent to the riparian corridor of the creek. Within Cottonwood Canyon, the project proposes to move the roadway out of the floodplain up the slopes of the canyon. A majority of the existing roadway would be covered by fill slopes of the new roadway, but there are 6 locations where the existing roadway would be abandoned and not covered. In-kind restoration of the abandoned roadway at these specific locations would restore jurisdictional southern willow scrub communities adjacent to the existing jurisdictional Bautista Creek riparian corridor.

These 6 sites are bends in the existing roadway, numbered 3a through 3f. Based on a preliminary sketch of these locations prepared by FWHA, 3a is 17,308 ft² (0.40 acre), 3b is 1,356 ft² (0.03 acre), 3c is 926 ft² (0.02 acre), 3d is 5,048 ft² (0.12 acre), 3e is 4,316 ft² (0.10 acre), and 3f is 13,186 ft² (0.30 acre).

According to these preliminary estimates, a total of approximately 0.97 acre of jurisdictional southern willow scrub could be restored in the abandoned roadway along Bautista Creek in the Cottonwood Canyon area.

The elevation of the roadway in relation to the adjacent creek would be investigated to determine if wetland hydrology is attainable and to determine if grading is necessary. The roadway surface may also need to be de-compacted in order to support vegetation. In-kind restoration of the site would include planting cuttings, during the appropriate season, from adjacent willows and mulefat. Seeding of the site with appropriate understory species may also be used. A high level of natural revegetation from the existing adjacent vegetation is expected at this location, which would augment the plantings. No supplemental irrigation is proposed at this location. Mitigation monitoring would be a component of the mitigation program at this location. Coordination with the USFS would be necessary to implement any enhancement or restoration at this location. Figure 3 shows photos of this site.

#### 4.4 Site 4: Tripp Flats Intersection - On-site, In-kind Creation

At this location, the proposed roadway would be located in the approximate location of the existing roadway and would include an oversized culvert system. The intersection of Bautista Canyon Road with the road to Tripp Flats occurs where 2 forks of Bautista Creek combine into one channel, which then flows north into Cottonwood Canyon. As you continue southeast on Bautista Canyon Road, the southern fork of Bautista Creek parallels the road on the south side. In this immediate area, the upland area between the roadway and the existing drainage corridor could be converted to riparian vegetation.

This upland area is 2 to 6 feet above the bottom of the existing drainage and is characterized as Great Basin scrub. Because a substantial amount of excavation would likely be required at this location to establish wetland hydrology, this location is better suited for the creation of non-jurisdictional southern willow scrub riparian vegetation.

Preliminary estimates indicate that 3,000 ft² to 4,000 ft² (0.07 to 0.09 acre) of creation could occur at this location. Following site preparation and excavation, in-kind riparian creation at this site would include planting cuttings, during the appropriate season, from adjacent willows. Seeding of the site with appropriate understory species may also be used. A low to moderate level of recruitment from the adjacent vegetation is expected at this location, which would augment the plantings. No supplemental irrigation is proposed at this location. Mitigation monitoring would be a component of the mitigation program at this location. Coordination with the USFS would be necessary to implement any enhancement or restoration at this location. Figure 4 shows photos of this site.

#### 4.5 Site 5: Tripp Flats Pond - Off-site, In-kind Creation

Just southwest of the study corridor along the road to Tripp Flats, an earthen embankment on a tributary to Bautista Creek has created a pond. This pond may be used as a stock pond for livestock grazing. The land owner for this pond is currently unknown. The open water of the pond is surrounded on the south and west by wetland vegetation (*Juncus* and *Scirpus*), but the north side of the pond is a disturbed area. This disturbed area is sparsely vegetated with ruderal species. It is anticipated that this location could support both jurisdictional riparian wetland creation (in the immediate vicinity of the pond) and non-jurisdictional riparian creation (on the slopes of the pond).

Because the pond is perennially inundated, the amount and success of wetland creation at this site is potentially higher. At least 0.5 acre of creation could be accommodated around this pond. Ownership and use of this site need to be investigated further. Figure 5 shows photos of this site.

#### 4.6 Other Potential Mitigation Opportunities in the Watershed

The focus of this preliminary reconnaissance and assessment was to identify the most logical locations for wetland mitigation in Bautista Canyon. Other potential sites likely exist. The County of Riverside, USFS, U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (Corps), U.S. Geological Survey (USGS), and California Department of Fish and Game (CDFG) should continue to be consulted regarding other mitigation efforts and opportunities in the watershed. Upon review and comment on this preliminary assessment, additional sites and opportunities for wetland mitigation may be investigated.

During consultation with the USFS for this report, several mitigation opportunities were identified that are not discussed above. Johnson Meadow, Willow Spring, and Palm Canyon locations were all suggested as potential sites for wetland enhancement or restoration. Because these locations are not located within Bautista Canyon, these sites have not been considered for mitigation for this project at this time.

Several other "non-traditional" mitigation opportunities could also be considered. Small inholdings of private land could be purchased and preserved as mitigation for the proposed project. As identified by the USFS, a parcel is currently for sale near the mouth of the canyon, downstream from Hixon Trail. This option could serve to mitigate more than just wetland impacts. Other potential mitigation opportunities include contributing mitigation fees to ongoing USFS mitigation projects or to wetland mitigation projects on the Santa Ana River or San Jacinto River, such as Team Arundo.

#### 4.7 Other Measures for Mitigating Wetland and Riparian Impacts

Other measures have been included as part of the proposed project to minimize and avoid indirect impacts to wetlands and riparian areas in Bautista Canyon. Implementation of this project would include culvert improvements at all drainage crossings. The main crossing of Bautista Creek would be a bridge. These design features may contribute to improved wildlife movement in the canyon. In addition, water quality is expected to improve with reduced sediment loads entering the creek from the roadway and crossings.

#### 5.0 CONCLUSION

Implementing a coordinated mitigation program at several of the sites described above should compensate for the jurisdictional and non-jurisdictional impacts from the proposed project. Based on this preliminary assessment of mitigation opportunities on Bautista Creek, sites 2 and 3 are recommended for implementation because these sites involve in-kind restoration of abandoned roadway sections on Bautista Creek. Site 2 would provide approximately 0.02 acre of jurisdictional and non-jurisdictional mitigation. Site 3 would provide approximately 0.97 acre of jurisdictional mitigation.

Salt cedar removal in the downstream portions of Bautista Creek (i.e., Site 1) would provide riparian enhancement mitigation, but this option should be evaluated more closely to determine if enhancement would affect sensitive species in the area. Mitigation at this site cannot be recommended at this time.

Site 4 would provide non-jurisdictional creation opportunities but would require site excavation and the removal of the existing undisturbed Great Basin scrub vegetation. This site is recommended as a secondary mitigation option.

Site 5 is ideal for wetland creation because it has an existing water source and is currently disturbed. Approximately 0.5 acre of jurisdictional and non-jurisdictional mitigation could be implemented at this

location. Because the ownership and use of the pond are currently unknown, mitigation at this site can not be recommended at this time.

This report is intended to summarize and prioritize the preliminary wetland mitigation options for the Bautista Canyon Road Project. Following review and comment on this preliminary assessment, a more detailed wetland mitigation proposal will be developed.

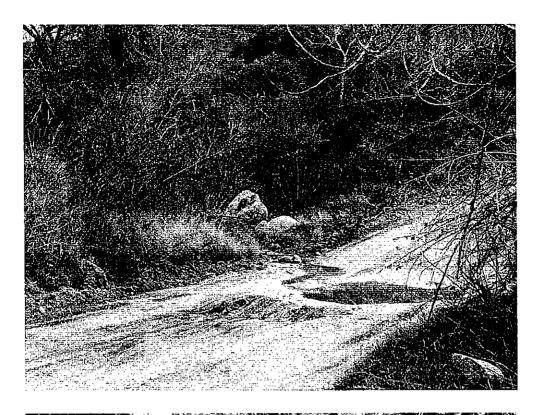


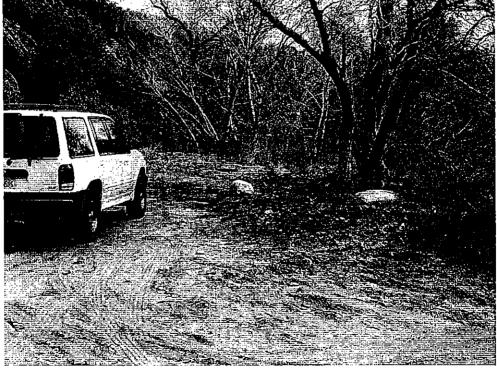




Site 1: Off-site Salt Cedar Removal. Located on Bautista Creek, in a 2.5 mile section downstream of Study Area in the vicinity of Hixon Trail.

FIGURE

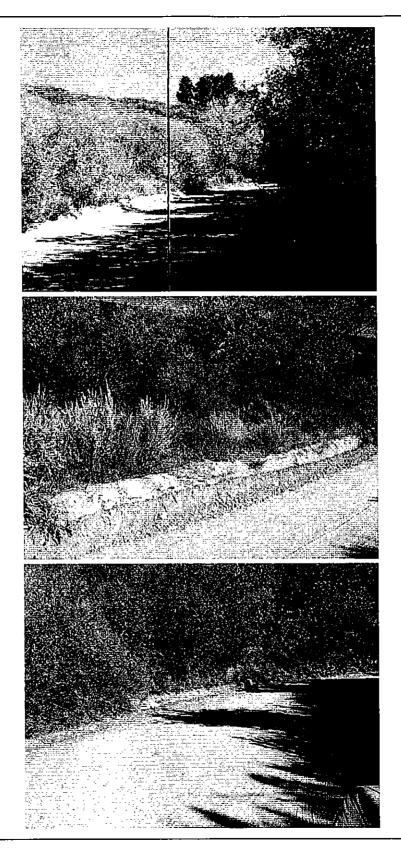






Site 2: On-site Restoration. Located at existing crossing of Bautista Creek that will be abandoned by the proposed project.

F I G U R E





Site 3: On-site Restoration. Abandoned roadway sections in Cottonwood Canyon on Bautista Creek.

F I G U R E







Site 4: On-site Creation. Potential area for southern willow scrub creation adjacent to the existing riparian corridor of Bautista Creek at the Tripp Flats Intersection.

F I G U R E







Site 5: Off-site Creation. Southern willow scrub and freshwater marsh creation around an existing pond just off-site near Tripp Flats.

FIGURE

# Appendix I Initial Site Assessment (ISA)



## Initial Site Assessment Bautista Canyon Road Project Anza, California

Prepared for County of Riverside Transportation Department 4080 Lemon Street, 8th Floor Riverside, CA 92501

### Initial Site Assessment (ISA) Checklist

Project imormatio	ject Information
-------------------	------------------

1 toject intormation				
District 8 County Riverside Route NA K	ilometer Post (Post Mile) <u>NA</u> EA <u>NA</u>			
Description: The Bautista Canyon Road project consists of an approximate 8.2-mile section or middle portion				
of Bautista Canyon Road (California Forest Highway [FH] 224) in Riverside County, California. "FH 224 is a				
21.7-mile route in Riverside County between state Highway (SH) 74, at the town of Valley Vista, and SH 371,				
about 1.5 miles west of the community of Anza." (Federal Highway Administration, Reconnaissance and				
Scoping Report, California Forest Highway 224, April 1994) The project begins 10.3 miles southeast of Valle				
Vista and ends 3.2 miles northwest of SH 371. Fig	ure 1 shows the site and the local vicinity. The goal or			
objective of this project is to provide the County of	Riverside Transportation Department (County) with an			
improved 8.2-mile section or the middle portion of Ba	utista Canyon Road. More specifically, the main purpose			
and need of this project is to provide the Anza area w	ith specific measures to improve fire protection and police			
and/or ambulance response time in the event of an en	mergency situation.			
Is the project on the HW Study Minimal-Risk Pro	ojects List (HW1)? No			
Project Manager Mary Zambon, County of Riverside	e Transportation Dept. phone # (909) 955-6759			
Project Engineer Farah Khorashad, County of Riv	rerside Transportation Dept. phone # (909) 955-6800			
Project Screening				
Attach the project location map to this checklist sites identified.	to show location of all know and/or potential HW			
1. Project Features: New R/W? Yes Excavat	tion? <u>Yes</u> Railroad Involvement? <u>No</u>			
Structure demolition/modification? No	Subsurface utility relocation?Yes			
2. Project Setting:				
Rural or Urban Rural/National forestry lands				
Current land uses	·			
Adjacent land uses some agricultural and some residential located north and south of the site in Valle Vista and Anza. A correctional facility is also located north of the site.				
(industrial, light industry, commercial, agricultural, residential, etc.)				
to see if any known hazardous waste site is in	map and attach additional sheets, as needed, to			
4. Conduct Field Inspection. Date 3/6/2002 Use the attached map to locate potential or known HW				
sites.				
STORAGE STRUCTURES / PIPELINE:				
Underground tanks <u>none observed</u> Surface tanks <u>none observed</u>				
Sumps none observed	Sumps none observed Ponds none observed			
Drums none observed	Basins none observed			
Transformers pole mounted	Landfill none observed			
Other GTE fiber optic cable lines	······································			

# Initial Site Assessment (ISA) Checklist (continued)

CONTAMINATION: (s	spills, leaks, illegal dumpi	ng, etc.)
Surface stainingno	one observed	Oil sheen none observed
Odors <u>none observed</u> <u>dumping</u>	· :	Vegetation damage <u>in some areas of open</u>
		ong several sections of the site including motor oil paint cans and unknown substances.
HAZARDOUS MATE	RIALS: (asbestos, lead, etc	c.)
Buildings none obser	rved	Spray-on fireproofing none observed
Pipe wrap none obse	rved	Friable tile none observed
Acoustical plaster no	one observed	Serpentine none observed
Paint none observed	·	<del>-</del>
Other <u>Evidence of op</u> <u>discovered was unkno</u>		long several sections of the site. The exact nature of debris
hazardous waste site. Use the a	•	subsequent land uses that could have resulted in a location of potential hazardous waste sites.
o. Other comments	and/or observationsSe	se attached report
potential hazardous waste in the	ve potential hazardous wa	aste involvement? <u>No</u> If there is known or SA work needed before task orders can be prepared for give an estimate of additional time required:
A brief memo shoul Project Engineer.	d be prepared to transmit	the ISA conclusions to the Project Manager and
ISA Conducted	l by	Date
	Lisa K. Woeber, Environment AMEC Earth & Environment	
Concurrence b	) <b>y</b>	Date
	Robert Prohaska, Project N	Manager



## Initial Site Assessment Bautista Canyon Road Project Anza, California

Prepared for County of Riverside Transportation Department 4080 Lemon Street, 8th Floor Riverside, CA 92501

Prepared by AMEC Earth & Environmental, Inc. 5510 Morehouse Drive San Diego, California 92121 (858) 458-9044

April 2002 Project No. 323021000



#### **TABLE OF CONTENTS**

	12 CT 02	DUOT	ON	Page
1.0			:e	
	1.1	•		
	1.2	Scope		
	1.3		cation	
2.0			LAND USE	
	2.1		cal Information Sources	
	2.2	Previou	us Use of the Project Site	4
		2.2.1	Review of Historical Photographs	4
	2.3		us Use of Adjacent Land	
3.0			NAISSANCE AND CURRENT CONDITIONS	
	3.1	Genera	al Observations of the Site	6
		3.1.1	Hazardous Substance, Petroleum Product, and Hazardous Waste	
			Storage, Handling, and Disposal	8
		3.1.2	Storage Tank Management	8
		3.1.3	Polychlorinated Biphenyl-Containing Equipment	8
		3.1.4	Solid Waste	8
		3.1.5	Air Emission	8
		3.1.6	Asbestos	8
		3.1.7	Lead-Based Paint	9
		3.1.8	Radon	9
		3.1.9	Lead-Contaminated Soil	9
	3.2	Surfac	e Water and Hydrogeology	9
	3.3	Drains	and Sumps	9
	3.4	Adjace	ent Properties	9
4.0	REP	ORTED	FEDERAL, STATE, AND LOCAL LISTS AND FILES OF HAZARDOUS SUBSTANCE/PETROLEUM PRODUCT	
	*		ND RELEASES	
	4.1	Datab	ases and Regulatory Files Reviewed	10
	4.2	Summ	nary of Database Review and Regulatory Agency Contacts	11
	4.3	Subje	ct Site	11
		4.3.1	California Department of Toxic Substances Control	11
		4.3.2	Santa Ana Regional Water Quality Control Board (Region 8)	11



		4.3.3	County of Riverside Department of Environmental Health	11
		4.3.4	County of Riverside Agricultural Commissioner/Weights and Measures Department	12
		4.3.5	United States Forest Service	12
		4.3.6	Riverside County Sheriff Department, Hemet Station	12
5.0	SUMN	MARY C	OF FINDINGS AND RECOMMENDATIONS	13
	5.1	Findin	gs	13
	5.2	Concl	usion	14
	5.3	Recor	mmendations	14
6.0	LIMIT		S	
LIST	Γ OF FI	GURES		
1	Proj	ect Loc	ation Map	3
LIS	Γ OF T	ABLES		
1	Mile	epost Lo	og	6
LIS	T OF A	PPEND	ICES	
A			ntal FirstSearch Report	A-1
R	PDC	ນເວດເສກເ	s From Site Beconnaissance	B-1



#### 1.0 INTRODUCTION

This report, prepared by AMEC Earth & Environmental, Inc. (AMEC), presents the results of an initial site assessment (ISA) of the Bautista Canyon Road project located along an approximate 8.2 mile stretch of Bautista Canyon Road in Riverside County, California (herein referred to as "the site"). The goal or objective of the Bautista Canyon Road project is to provide the County of Riverside Transportation Department (County) with an improved 8.2-mile section of the middle portion of Bautista Canyon Road. More specifically, the main purpose and need of the project is to provide the Anza area with specific measures to improve fire protection and police and/or ambulance response time in the event of an emergency situation.

AMEC conducted the ISA at the request of the County as part of a larger environmental services agreement and in accordance with our proposal dated 19 September 2000 and the contract between AMEC (formerly Ogden Environmental and Energy Services) and County of Riverside dated 30 October 2000. This ISA was performed in general conformance with the scope of the Caltrans Environmental Branch Guidelines for Hazardous Waste Studies and the American Society for Testing and Materials (ASTM) Standard E 1527-00.

#### 1.1 Purpose

The objective of this ISA was to evaluate the site for indications of recognized environmental conditions due to previous or ongoing, on- and off-site activities or conditions. The assessment was based on discernible visual observations, and on documented present and historic uses of the property.

The term "recognized environmental conditions" includes hazardous substances or petroleum products even under conditions in compliance with environmental laws. The term is not intended to include *de minimus* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies.

#### 1.2 Scope

This assessment was accomplished principally by review of available documented information relative to land use, supplemented with site reconnaissance and file review(s) at appropriate public agencies. It was performed in accordance with generally accepted environmental engineering practices.

AMEC conducted this ISA by performing the following scope of work:

- Conduct a reconnaissance of the site to visually observe existing conditions and look for signs of contamination from hazardous wastes or toxic substances
- Observe adjacent properties and the site vicinity to assess potential hazardous materials issues of environmental concern



- Review readily available aerial photographs, topographic maps, and geologic reports relevant to the site and surrounding area
- Review readily available public agency records listing sites of potential environmental concern in the vicinity of the subject property
- Formulate conclusions and prepare this written report presenting the findings of the assessment

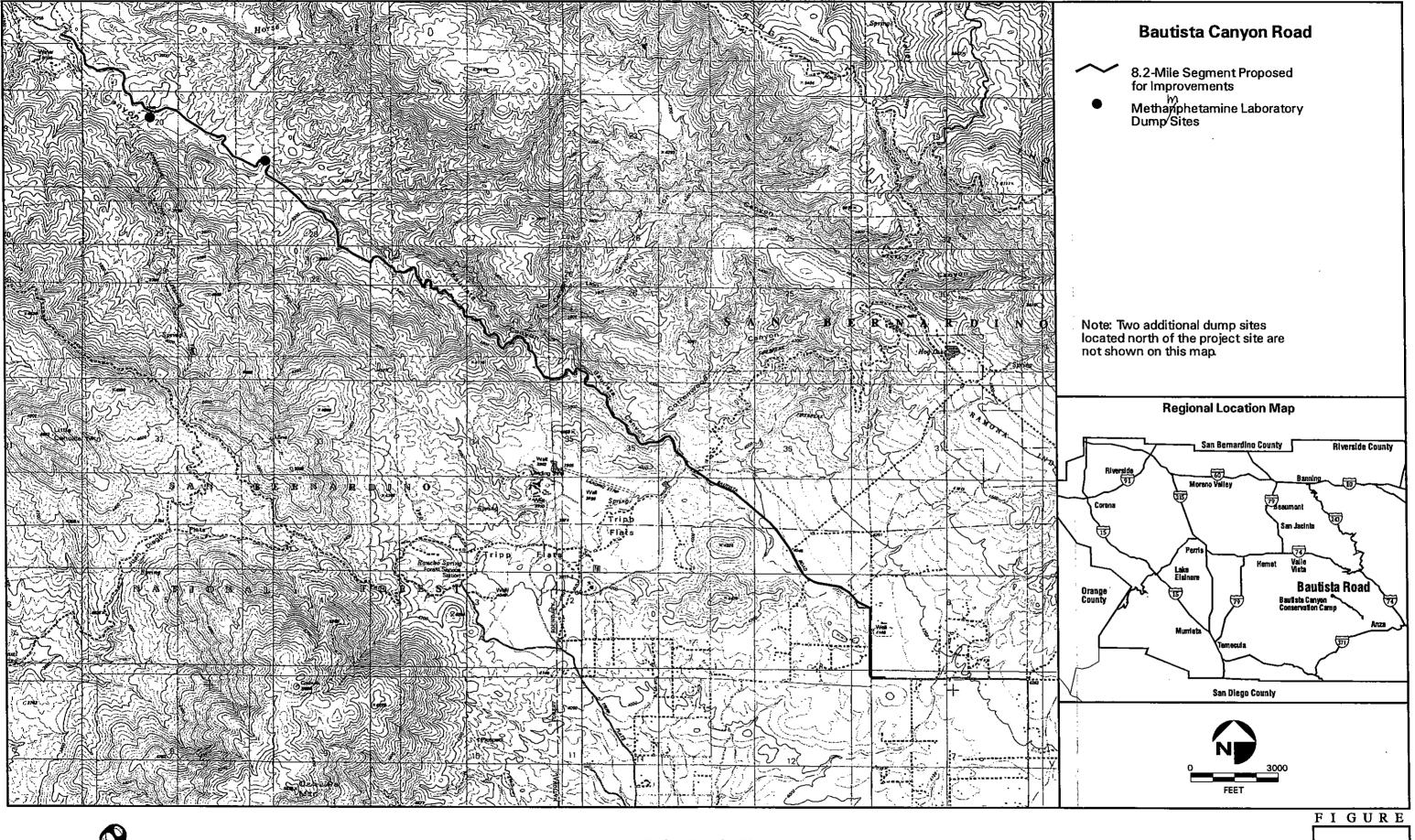
This ISA is based on the work scope described above. In conducting this assessment, AMEC did <u>not</u> perform geologic mapping, chemical laboratory testing of soil or water, or any surveys for wetlands, endangered species, regulatory compliance, ecological resources, indoor air quality, cultural and historic resources, industrial hygiene, health and safety, asbestoscontaining building materials, lead-based paint, radon gas, lead-contaminated soil, high voltage powerlines or lead in drinking water.

This ISA has been completed in general accordance with the American Society for Testing and Materials (ASTM) Standard E 1527-00, Caltrans Environmental Branch Guidelines for Hazardous Waste Studies. These criteria meet the level of care and technical complexity currently practiced by environmental professionals for projects of a similar scope. AMEC regularly reviews the current state of environmental practice in order to advance the technical quality of its ISAs.

#### 1.3 Site Location

The site consists of an approximate 8.2-mile section or the middle portion of Bautista Canyon Road (California Forest Highway [FH] 224) in Riverside County, California. "FH 224 is a 21.7-mile route in Riverside County between state Highway (SH) 74, at the town of Valley Vista, and SH 371, about 1.5 miles west of the community of Anza." (Federal Highway Administration, Reconnaissance and Scoping Report, California Forest Highway 224, April 1994) The site begins 10.3 miles southeast of Fairview Avenue in Valle Vista and terminates 3.2 miles northwest of SH 371 in Anza. Figure 1 shows the site and the local vicinity.

The site is currently unpaved with a native soil (decomposed granite) surface and is approximately 16 to 20 feet (5 to 6 meters) wide. The site is proposed to be paved with asphalt pavement.



amec[©]

Project Location Map

# APPENDIX A ENVIRONMENTAL FirstSearch REPORT



#### 2.0 HISTORICAL LAND USE

Research on historical land use was conducted to evaluate whether past or current practices involving the use, storage, treatment, generation, and/or disposal of hazardous substances or petroleum products may have taken place on the site or whether contamination on properties in the site vicinity may have impacted the site.

#### 2.1 Historical Information Sources

Aerial photographs were reviewed to evaluate the historical usage of the site and adjacent land. The aerial photographs from 1947, 1974, 1983, 1996, and 2000 were reviewed. No photographs from the 1950's or 1960's were available from the Riverside County Flood Control and Water Conservation District.

#### 2.2 Previous Use of the Project Site

#### 2.2.1 Review of Historical Photographs

The earliest available information regarding the site history was obtained from a 1947 aerial photograph.

In the 1947 aerial photograph, the site and surrounding areas appear to be primarily undeveloped and vacant land with exception of the development of Bautista Canyon Road. Trails or service roads, which appear to cross or lead to Bautista Canyon Road, are also observed.

In the 1974 aerial photograph, development is visible southeast of the site along what appears to be Tripp Flats Road. A rectangular building with a parking lot and a landing strip are observed to the west of Tripp Flats Road.

In the 1983 aerial photograph, new development is visible to the southeast of the site. Multiple rectangular buildings with parking lots and access roads appear to the south and west of the landing strip site. In addition, the Bautista Canyon Road site appears to remain unchanged.

In the 1996 aerial photograph, a round cylinder tower with an access road is visible to the southeast of the site. The tower is located to the west of the landing strip site. There also appears to be new development northwest of the site including six large rectangular buildings and multiple smaller buildings (Bautista Canyon Conservation Camp). The buildings appear to have parking areas and access roads.

In the **2000** aerial photograph, the site and surrounding areas appear similar to the 1996 photograph.



#### 2.3 Previous Use of Adjacent Land

Based on a review of historical information, the majority of the undeveloped adjacent lands likely have been maintained as part of the San Bernardino National Forest. The Tripp Flats landing strip and facilities which are maintained and used by the Forest and the Fire Protection Services, and are located southeast of the site appears to have been constructed prior to 1979. The California Department of Corrections, Bautista Canyon Conservation Camp appears to have been constructed to the northwest of the site prior to 1996. Evidence of areas with potential environmental concerns was not observed on the adjacent lands.



#### 3.0 SITE RECONNAISSANCE AND CURRENT CONDITIONS

The purpose of the site reconnaissance was to observe visual evidence of the use, storage, generation, and disposal of potentially hazardous substances and petroleum products, and indicators of possible releases of hazardous substances and/or petroleum products at the site. Evidence of possible releases of hazardous substances or petroleum products may include discolored soil, flooring, or paving; visible leaks; odors; and apparent stressed vegetation. A visual survey of adjacent properties from the site was also conducted. AMEC personnel conducted the reconnaissance of the site and the adjacent property survey on 6 March 2002. The following sections present the observed conditions of the site and adjacent properties on the above date. Representative photographs of the site, taken during the site reconnaissance, are presented in Appendix B.

#### 3.1 General Observations of the Site

The existing Bautista Canyon Road, from the intersection of SH 74 and Fairview Avenue in Valle Vista to the intersection with SH 371 in Anza, consists mainly of two lanes running north south through the San Bernardino National * **Forest** and for approximately 21.7 miles. The road is surfaced with native soil (decomposed granite) from the town of Anza to the Bautista Canyon Conservation Camp and is surfaced with asphalt pavement from there to Fairview Avenue in Valle Vista. The site begins at approximately 10.3 miles from Fairview Avenue and consists of the approximate 8.2 miles of unpaved road in between SH 74 and SH 371. The following observations were noted along the site (Table 1).

Table 1
Milepost Log

Milepost*	Observations	Photograph No.
10.3 10.6	Power lines adjacent to west side of road with capacitors (Owned by Anza Electrical Cooperative). Runs westward after 10.6.	
10.65	Fiber optic cable posts located along the roadway from MP 10.3 to MP 18.5 approximately every three feet. (Owned by Verizon)	
11.5	Storm pipe located under road, discharges west of road	
11.5	Road washout, evidence of erosion control (silt fencing)	Photo 1
11.6	Evidence of open dumping (furniture, scrap metal, trash, etc.) Extends approximately 30 to 50 feet downhill in a westerly direction and approximately 50 feet north along the roadway.	Photo 2
11.6	4 one-gallon metal de-natured alcohol containers dumped in culvert south of "main dump".	Photo 3
11.6	A white, powdery substance was observed to have leaked down the hillside towards the culvert.	Photo 4
12.1	Mattress and box spring dumped next to Bautista Creek on west side of the roadway.	Photo 5
12.3	Evidence of open dumping (decomposing furniture) on east side of roadway.	Photo 6



## Table 1 Milepost Log (continued)

Milepost*	Observations	Photograph No.
12.5	Evidence of open dumping – approximately 15 quart-size motor oil containers, 5 1-gallon antifreeze containers – on east side of roadway.  Also evidence of open burning within the same area.	Photo 7 through Photo 9
12.8	Evidence of open dumping (trash and front end of automobile) on east side of roadway.	Photo 10 through Photo 11
12.9	Dumped sofa on east side of roadway	
13.1	Dumped chair on east side of roadway	Photo 12
13.2	Evidence of open dumping (futon, household wastes, washer and dryer, paint cans, motor oil and miscellaneous debris) on east side of roadway.	Photo 13 through Photo 15
13.4	Evidence of open dumping (gutter, box with used filters, miscellaneous debris) on west side of road.	Photo 16
13.4	Dumped sofa on east side of roadway	Photo 17
13.7	Evidence of open dumping (tire and motor oil containers) on east side of road.	
14.0	Evidence of open dumping (tire, crushed concrete, sofa, etc.) on east side of road.	·
14.1	Evidence of open dumping (cans and cardboard debris) on east side of road.	
14.3	Dumped tires on east side of roadway.	
14.4	Approximately 15 dumped tires on east side of roadway.	
14.7	Evidence of open dumping (5-gallon metal drum with unknown substance and sofa) on east side of road.	
14.8	Approximately 20 dumped tires on east side of roadway.	
14.9	Evidence of open dumping (wood debris, concrete, spent rifle shells, bottles, etc.) on east side of road.	
15	Dumped washer, oven and television on west side of roadway.	Photo 19
15.3	Approximately 30 dumped tires on east side of roadway.	Photo 20
16.4	Dumped truck bed on east side of roadway.	
16.5	Roadway to Tripp Flats on west/right	
16.6	Approach road FDR 6S16 veers east/left	
17.2	San Bernardino National Forest boundary	
17.2	Private driveway on west/right with evidence of open dumping	
17.4	Approach road FDR 6S18 veers west/right	
17.4	Dumped refrigerator on east side of roadway	
18.1	Flying W Ranch driveway east side of roadway	
18.5	End of native soil surface; beginning of asphalt pavement surface	

^{*} Mileposts were determined by odometer readings and may not correspond with actual distance.



### 3.1.1 Hazardous Substance, Petroleum Product, and Hazardous Waste Storage, Handling, and Disposal

Based on observations made during the site reconnaissance, evidence of potential hazardous substance and petroleum product release, and/or disposition was observed at several of the open dumping areas along the subject site including staining and burning. (See photographs 3, 7, 8, and 9, Appendix B)

#### 3.1.2 Storage Tank Management

There are no observed aboveground (ASTs) or underground storage tanks (USTs) currently along the site. However, a review of the regulatory agencies database listings and contact with regulatory agencies (Section 4) indicate that USTs are registered to the Laborers School located at 36401 Tripp Flats Road, Anza, 0.01 miles southwest of the site.

#### 3.1.3 Polychlorinated Biphenyl-Containing Equipment

The powerlines with capacitors were observed along the roadway, and varied in distance from 30 to 500 feet or more from the side of Bautista Canyon Road. According to the FHA Reconnaissance and Scoping Report, California Forest Highway 224, Bautista Canyon Road, (FHA Report, 1994), the aerial, 4-strand powerline is owned by Anza Electric Cooperative (AEC). AEC was contacted 5 April 2002 to obtain any records indicating the presence of polychlorinated biphenyls (PCBs). Mr. Dennis Joyce indicated that they have either received a letter from the manufacture stating that the equipment along Bautista Canyon Road did not contain PCBs or they have tested it for PCBs.

In addition, markers with appurtenant maintenance manholes indicating fiber-optic lines were observed running parallel to Bautista Canyon Road. Verizon Communications Service was contacted 5 April 2002 to obtain information regarding potential hazardous materials used in relation to the fiber-optic lines. Operator #49, Dana, stated that all of the materials used in Verizon operations contain no hazardous substances.

#### 3.1.4 Solid Waste

At many locations along the site, evidence of open dumping including several types of solid waste (e.g., waste tires) was observed along site. While the waste tires posed a fire hazard and vector (e.g., mosquitoes, rodents, etc.) control issue, the quantity reported did not exceed the regulatory enforcement limit of 500 tires.

#### 3.1.5 Air Emission

The subject site does not have air emission sources.

#### 3.1.6 Asbestos

An asbestos survey was not included in the scope of services.



#### 3.1.7 Lead-Based Paint

A lead-based paint survey was not included in the scope of services.

#### 3.1.8 Radon

A radon survey was not included in the scope of services.

#### 3.1.9 Lead-Contaminated Soil

Lead soil sampling was not included in the scope of services.

#### 3.2 Surface Water and Hydrogeology

A review of the document entitled *Water Quality Control Plan for the Santa Ana River Basin (8)* (Basin Plan), prepared by the Santa Ana Regional Water Quality Control Board (RWQCB) and dated March 1995, indicates that the site is located in the San Jacinto Hydrologic Area that is located in the San Jacinto Valley Hydrologic Unit. Groundwater in the Hot Springs HSA is designated as having potential beneficial use for municipal, agricultural, groundwater, recreational, wildlife habitat and cold freshwater habitat purposes (RWQCB 1995). According to information presented in a Geologic Map of California, Santa Ana Sheet, the site is underlain by Quaternary Age recent alluvium consisting of unconsolidated stream, river channel, and alluvial fan deposits. It is also underlain in some areas by pre-Cenozoic granitic and metamorphic rocks.

The 8.2-mile (13.2 kilometer) segment can generally be described as mountainous terrain. The site ranges in elevation from 2,750 to 4,150 feet (838 meter to 1,265 meters). The terrain of the northernmost section of the route, approximately 2.3 miles (3.7 kilometers), is fairly level top-of the-ridge or side-hill terrain and it crosses several drainages, including Bautista Creek. The next 3.8 miles (6.1 kilometers) of the route are fairly steep terrain with predominant side-hill terrain. This section also crosses several drainages, including Bautista Creek. The southernmost section of the route, approximately 2.1 miles (3.4 kilometers), is gentle side-hill and alluvial fan terrain and the route crosses no significant drainages.

#### 3.3 Drains and Sumps

Several culverts were observed at various points along Bautista Canyon Road during the site reconnaissance.

#### 3.4 Adjacent Properties

Adjacent properties were surveyed from within the site perimeter. The site is primarily located with the San Bernardino National Forest. Properties located to the north and south of the site are used for institutional, commercial, agricultural and/ or residential purposes. Based on a review of the database listings described in Section 4, there have been no reported unauthorized releases at any of these properties.



# 4.0 REVIEW OF FEDERAL, STATE, AND LOCAL LISTS AND FILES OF REPORTED HAZARDOUS SUBSTANCE/PETROLEUM PRODUCT SOURCES AND RELEASES

This section includes the results of a review of federal, state, and local lists and files of reported hazardous waste sites and hazardous substance/petroleum product sources and releases for properties within the site vicinity. A summary of the federal and state environmental release listings reviewed was provided by Environmental FirstSearch (FirstSearch). FirstSearch's database is continually updated and is considered one of the most sophisticated in the industry. The information obtained from the database and contacts with regulatory agencies is summarized below. The FirstSearch report is presented in Appendix A.

#### 4.1 Databases and Regulatory Files Reviewed

A list of the databases reviewed is provided below.

- National Priority List (NPL)
- Resource Conservation and Recovery Act (RCRA) Corrective Actions (CORRACTS)
- State Equivalent Priority List (SPL)
- Sites currently or formerly under review by the EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) - No Further Response Action Planned (NFRAP)
- State equivalent of CERCLIS list (SCL)
- RCRA permitted treatment, storage, disposal facilities (TSD)
- Leaking Underground Storage Tank Listing (LUST)
- Permitted as solid waste landfills, incinerators, or transfer stations (SWLF)
- Sites with deed restrictions (DEED RSTR)
- State index of properties with hazardous waste (CORTESE)
- Toxic Pits cleanup facility (Toxic Pits)
- Federal and State Drinking Water Source (Water Wells)
- RCRA violation/enforcement actions (RCRA Viol)
- Toxic Release Inventory System database (TRIS)
- Registered Underground or Aboveground Storage Tanks (UST/AST)
- Emergency Response Notification System of Spills (ERNS)
- RCRA registered small or large generators of hazardous waste (GNRTR)
- State spills list (SPILLS)
- Riverside County Hazardous Materials/Waste/Violations Database

A summary of each of these lists is provided in the FirstSearch database report in Appendix A. These lists were reviewed to document the location of known federal and state Superfund sites, or other known hazardous waste sites in proximity to the site following ASTM search distance guidelines. AMEC uses the most current ASTM standards on environmental site assessment



as a basis for delineating a study area during the database review. ASTM standards recommend using a 1-mile radius search distance for NPL and state hazardous waste sites databases, and a 0.5-mile search distance for CERCLIS, landfill, and LUST databases. The local, unauthorized release databases are reviewed for the site and adjacent properties.

#### 4.2 Summary of Database Review and Regulatory Agency Contacts

Based upon information presented in the FirstSearch database report, neither the site nor the surrounding properties located within the ASTM designated search radius are found in the regulatory database listings with the exception of one property that has registered ASTs.

The Laborers School located 0.01 miles southwest of the site at 36401 Tripp Flats Road, Anza is listed in the State Regional Water Quality Control Board, Region 9 above ground storage tank database.

The California Department of Toxic Substances Control (DTSC), Santa Ana RWQCB, County of Riverside DEH, Riverside County Fire Department (RCFD), County of Riverside Agricultural Commissioner/Weights and Measures Department, United States Forest Service (USFS), and Riverside County Sheriff Department (RCSD) were contacted to obtain information regarding operations at the site.

#### 4.3 Subject Site

The site was not noted in the FirstSearch report as being listed in any of the regulatory agencies' files or listings.

#### 4.3.1 California Department of Toxic Substances Control

The DTSC was contacted on 11 February 2002 to obtain information regarding possible permits and violations for the site. On 19 February 2002, Ms. Julie Johnson with DTSC indicated that they have no files or records for the site.

#### 4.3.2 Santa Ana Regional Water Quality Control Board (Region 8)

The Santa Ana RWQCB was contacted to obtain information for the site and to determine if The Laborers School was every list on the RWQCB LUST list. On 13 February 2002, Ms. Annette Subriar of the RWQCB indicated that they have no records for either the site or The Laborers School.

#### 4.3.3 County of Riverside Department of Environmental Health

The County of Riverside DEH was contacted on 11 February 2002 to obtain information regarding possible hazardous materials/waste permits and UST installation permits, as well as complaints, violations, and unauthorized releases for the site. On 19 March 2002, Ms. Suzanne Cauffiel of the Riverside DEH indicated that they had no records for the site and one record for The Laborers School. According to Ms. Cauffiel, the record contained general administration filings including a UST closure form but no complaints, violations, and unauthorized releases.



## 4.3.4 County of Riverside Agricultural Commissioner/Weights and Measures Department

The County of Riverside Agricultural Commissioner/Weights and Measures Department (AWM) was contacted on 11 February 2002 to obtain information regarding past use of pesticides on the site. Mr. Snyder with AWM indicated that the United States Forest Service was responsible for fertilizer, herbicide and pesticide application in the San Bernardino National Forest, therefore; the AWM would have no records for the site.

#### 4.3.5 United States Forest Service

The United States Forest Service (USFS) was contacted on 20 March 2002 to obtain information regarding the use of fertilizers, herbicides and pesticides and the location and files on methanphetamine laboratory dumps on or near the site. Mr. Mike Casby and Ms. Deborah Wutzke of the USFS Patrol Unit indicated that there was no history of fertilizer, herbicide, or pesticide use on the property. Ms. Wutzke mentioned that there were four dump sites locations off Bautista Canyon Road. One dump was located at a stream crossing at the coordinates 116' 47.145' N; 33'37.967' W. Another dump site was located 0.8 of a mile above Bautista Canyon Conservation Camp, California Department of Corrections at 116' 47.145' N; 33' 38.245' W. Two other dumps were located by Hixon Trail at 116' 50.047' N; 33' 40.408' W.

The USFS was contacted again on 25 March 2002 to determine the contents of the dump sites. Ms. Deborah Wutzke indicated that the dump sites contained empty containers, primarily of denatured alcohol. She mentioned that the Riverside County Sheriff Department handles most of the operations of the methanphetamine laboratory dumps around the site.

#### 4.3.6 Riverside County Sheriff Department, Hemet Station

The Riverside County Sheriff Department (RCSD) in Hemet was contacted on 26 March 2002 to obtain information regarding the files on the methanphetamine laboratory dumps. Mr. Dave Stroh from RCSD indicated that most of the dump sites contained empty 5-gallon gray containers of freon that were crushed for easy disposal, empty 1-gallon camp fuel containers (denatured alcohol), and empty containers of 1000-count pseudo-aphredine pill bottles. He also indicated that the dump sites may often contain solvents such as acid and the binders from the pill capsules.

#### 4.3.7 ADJACENT PROPERTIES

There was one property noted in the FirstSearch report as being listed on one of the regulatory agencies' files or listings with the ASTM radiuses searched. (See Section 4.2)



#### 5.0 SUMMARY OF FINDINGS AND RECOMMENDATIONS

AMEC has performed an initial site assessment of the site in conformance with the scope and limitations of the Caltrans Environmental Branch Guidelines for Hazardous Waste Studies and the American Society for Testing and Materials (ASTM) Standard E 1527-00. The site consists of an approximate 8.2-mile section or middle portion of Bautista Canyon Road (California Forest Highway [FH] 224) in Riverside County, California. The site begins 10.3 miles southeast of Fairview Avenue in Valle Vista and terminates 3.2 miles northwest of SH 371 in Anza.

#### 5.1 Findings

Based on this site assessment, AMEC's findings are summarized below:

- The site is currently unpaved with a native soil (decomposed granite) surface and is approximately 16 to 20 feet (5 to 6 meters) wide. The site is primarily located with the San Bernardino National Forest. Properties located to the north and south of the site along Bautista Canyon Road are used for institutional, commercial, agricultural and/ or residential purposes.
- Based on a review of historical information, the majority of the undeveloped adjacent lands likely have been maintained as part of the San Bernardino National Forest. The Tripp Flats landing strip and facilities which are maintained and used by the Forest and the Fire Protection Services, and are located southeast of the site appears to have been constructed prior to 1979. The California Department of Corrections, Bautista Canyon Conservation Camp appears to have been constructed to the northwest of the site prior to 1996. Evidence of areas with potential environmental concerns was not observed on the adjacent lands.
- Based upon information presented in the FirstSearch database report, neither the site nor the surrounding properties located within the ASTM designated search radius are found in the regulatory database listings with the exception of one property that has registered ASTs. (The Laborers School located 0.01 miles southwest of the site at 36401 Tripp Flats Road, Anza.) In addition, regulatory agencies contacted for further information regarding the site were not able to obtain any records with the exception of the Riverside County Sheriff Department (RCSD) and United States Forest Service who had records of several methanphetamine laboratory dump sites located along and north of the site. According to the RCSD records, empty containers of freon, denatured alcohol, pseudo-aphredine pills and occasionally acids are found at the dump sites. The presence of containers of denatured alcohol was confirmed during the site reconnaissance.
- During the site reconnaissance, many locations along the site had evidence of open dumping including several types of solid waste (e.g., waste tires). While the waste tires posed a fire hazard and vector (e.g., mosquitoes, rodents, etc.) control issue, the quantity reported did not exceed the regulatory enforcement limit of 500 tires. In addition, visual evidence of potential hazardous substance and petroleum product release, and/or disposition was observed at several of the open dumping areas along the subject site including staining and burning. (See photographs 3, 7, 8 and 9, Appendix B)



#### 5.2 Conclusion

Based on the site assessment findings, AMEC does recognize potential environmental conditions that may have impacted the site.

#### 5.3 Recommendations

Based on the site reconnaissance conducted during this ISA, AMEC recommends soil sampling and analysis be performed for the subject site in the areas where staining and burning was observed to further characterize the nature of the staining. Although there was no documentation of unauthorized releases or of existing hazardous substance or petroleum product contamination at the subject site, the evidence observed indicates the potential for contamination.



#### 6.0 LIMITATIONS

The findings, observations, conclusions, and recommendations of this report are limited by the technical requirements specified in the contract between AMEC Earth & Environmental, Inc. (AMEC) and County of Riverside Transportation Department (Client) for the subject property. The findings, observations, conclusions, and recommendations presented herein, unless otherwise stated, are based solely on the information obtained and presented herein.

In preparing this report, AMEC relied on information derived from governmental agencies, municipal utilities, computer databases, and personal interviews. Except as set forth in this report, AMEC made no independent investigations as to the accuracy and completeness of the information derived from the listed sources. AMEC assumes that all information obtained during the course of the investigation is accurate and complete.

All findings, observations, conclusions, and recommendations stated in this report are based on facts; circumstances; applicable federal, state and local laws, rules, and regulations; and generally accepted national standards for such services in existence at the time that the report was prepared. Topics not explicitly discussed within this report should not be assumed to have been investigated or tested. This service does not guarantee current compliance with federal, state, or local laws, rules, or regulations.

This report remains valid for 180 days and is prepared for the sole use and benefit of the Client. Reliance upon this report by any third party shall be (1) at such third party's sole risk, (2) strictly limited to the terms and conditions of the contract between AMEC and Client and the limitations set forth above and in other sections of this report, and (3) conditioned upon such third party executing AMEC's secondary client agreement and making payment to AMEC as consideration for such reliance.

## TRACK ➤ INFO SERVICES, LLC Environmental FirstSearch™ Report

### TARGET PROPERTY:

## BAUTISTA CANYON ROAD

**ANZA CA 92539** 

Job Number: 323021000

#### PREPARED FOR:

**AMEC** 

5510 Morehouse Drive San Diego, CA 92121

02-07-02



Tel: (619) 562-4842

Fax: (619) 562-4844

Environmental FirstSearch is a registered trademark of FirstSearch Technology Corporation. All rights reserved.

## Environmental FirstSearch Search Summary Report

Target Site:

**BAUTISTA CANYON ROAD** 

**ANZA CA 92539** 

#### FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2 >	ZIP	TOTALS
NPL	Y	01-09-02	1.00	0	0	0	0	0	0	0
CERCLIS	Y	01-09-02	0.50	0	0	0	0	-	0	0
RCRA TSD	Y	01-14-02	0.50	0	0	0	0	•	0	0
RCRA COR	Y	01-14-02	1.00	0	0 -	0	0	0	0	0
RCRA GEN	Y	01-14-02	0.25	0	0	0	-	-	0	0
RCRA NLR	N	01-14-02	0.12	-	-	-	-	-	-	-
ERNS	Y	12-31-00	0.12	0	0	-	-	-	2	2
NPDES	N	01-14-02	0.25	•	-	-	-	-	•	· -
FINDS	N	07-08-01	0.25	-		-	-	-	-	-
TRIS	N	07-16-98	0.25	-	•	-	-	-	-	-
State Sites	Y	10-25-00	1.00	0	0	0	0	0	0	0
Spills-1990	Y	01-15-02	0.12	0	0	-	-	•	0	0
Spills-1980	N	NA	0.25	-	-	-		-	-	-
ŚWL	Y	11-13-01	0.50	0	0	0	0	-	0	0
Permits	N	12-11-01	0.12	-	-	-	-	-	-	-
Other	N	01-11-01	0.12	-	-	-	-		-	-
REG UST/AST	Y	01-03-02	0.25	0	2	0	-	-	0	2
Leaking UST	Y	08-31-01	0.50	0	0	0	0	-	0	0
State-Wells	N	NA	0.50	-	-	-	-	-	-	-
Aquifers	N	NA	0.50	-	-	-	-	-	-	-
ACEC	N	NA	0.50	-	-	-	-	-	-	-
Wetlands	N	11-20-00	0.50	-	-	-	-	-	-	-
Floodplains	N	NA	0.50	-	-	-	-	-	-	-
Receptors	N	01-01 <b>-</b> 95	0.50	-	-	-	-	-	-	-
Nuclear Permits	N	04-30-99	0.50	-	-	-	-	-	-	-
Historic/Landmark	N	03-08-01	0.50	-	-	-	-	-	-	-
Federal Land Use	N	06-17-98	0.50	-	-	-	-	-	-	-
Federal Wells	N	NA	0.50	-	-	-	-	-	-	-
Releases(Air/Water)	N	01-06-00	0.25	-	-	•	-	-	-	-
- TOTALS -				0	2	0	0	0	2	4

#### **Notice of Disclaimer**

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agenc sites residing in TRACK Info Services' databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

#### Waiver of Liability

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services' services proceeding are signifying an understanding of TRACK Info Services' searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

## Environmental FirstSearch Site Information Report

**Request Date:** 

02-07-02

Requestor Name:

Chuck

Standard: ASTM

Search Type: LINEAR

Job Number:

323021000

FILTERED REPORT

Target Address: BAUTISTA CANYON ROAD

**ANZA CA 92539** 

## Demographics

Sites:

Non-Geocoded: 2

Population: NA

Radon: NA

#### Site Location

	Degrees (Decimal)	Degrees (Min/Sec)	<del>-</del> ·	<u>UTMs</u>
Longitude:	-116.763311	-116:45:48	Easting:	521956.523
Latitude:	33.6143	33:36:51	Northing:	3719223.577
			Zone:	11

#### Comment

**Comment:** 

## Additional Requests/Services

Adjacent ZIP Codes: 0.00 Mile(s)

Services:

ZIP	<del></del>		· ,	
Code	City Name	ST	Dist/Dir	Sel
		-		
		·		

	Requested?	<u>Date</u>
Sanborns	N	
Aerial Photographs	N	
Topo Maps (hardcopy)	. N	
City Directories	N	
Title Search	N	,
Municipal Reports	N.	
Online Topo Map	N	

## Environmental FirstSearch Sites Summary Report

**TARGET SITE:** 

BAUTISTA CANYON ROAD ANZA CA 92539

JOB:

323021000

TOTAL:

GEOCODED: 2

NON GEOCODED:

SELECTED:

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
3	UST	LABORERS TRAINING SCHOOL THE TISID-STATE36724/ACTIVE	36401 TRIPP FLATS RD ANZA CA 92539	0.01 SW	1
4	UST	THE LABORERS SCHOOL AST101123/AST SWRCB REG.9	36401 TRIPP FLATS RD ANZA CA 92539	0.01 SW	1

## Environmental FirstSearch Sites Summary Report

**TARGET SITE:** 

BAUTISTA CANYON ROAD ANZA CA 92539

JOB:

323021000

TOTAL:

GEOCODED: 2

NON GEOCODED:

2

SELECTED:

<u>ID</u>	<b>DB</b> Туре	Site Name/ID/Status	Address	Dist/Dir	Map ID
2	ERNS	UNK 117320/UNKNOWN	TRIPP FLATS/FOREST FIRE STATIO ANZA CA 92539	NON GC	
I	ERNS	UNK 105615/UNKNOWN	BAUTISTA RD ANZA CA 92539	NON GC	

# Environmental FirstSearch Normalized Summary Report

Ħ		
	K	
3		
Databases		
tal		
Da		
1		
1 1	VO V	
Į,		
Ì		
1		MANUE SE
S. E.		REST 15234
TOTAL	7	7
T s		
Δ.		
Map 10		
2_		, ,
Dist/Dir	0.01 SW	AL
Dist	0.01	TOTALS
	LABORERS TRAINING SCHOOL 36401 TRIPP FLATS RD ANZA CA 92539	
	CH.	1
	NG S	
	TS R	
	11. A. 1. S.	
mе	LABORERS TRAINING 36401 TRPP FLATS RD ANZA CA 92539	
	12 E O	
Site Name Address	BOF 10 42	

s an an Spills US UST AC - ACEC NU - Nuclear Permits RE - Releases		LF - Landfills LS · LUST WE - Wetlands	Sites PM - Permits PW - PWS FP - Floodplains FL - Federal Land Use Page	OT - Other AQ - Aquifers RP - Receptors FW - Federal Wells
_				Receptors
US - UST		LS · LUST	PW - PWS	AQ - Aquifers
80 - 80's Spills	200	LF - Landillis	PM - Permits	OT - Other
EN - EINDS		TR-TRIS	ST - State Sites	SP - 90's Spills
SUND POOR CEN ENDS	110 X 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	RN - RCRA NLR TR - TRIS	SNAH - AH	NS - NPDES
710 1011		CE - CERCLIS	or provided	BC - RCRA COR

## Environmental FirstSearch Site Detail Report

**TARGET SITE:** 

BAUTISTA CANYON ROAD ANZA CA 92539

JOB:

323021000

SEARCH ID: 3	DIST/DIR:	0.01 SW	MAP ID:
NAME: / LABORERS TRAINING SCHOOL THE		REV:	01/01/94
ADDRESS: 36401 TRIPP FLATS RD ANZA CA 92539		1D1: ID2:	TISID-STATE36724
RIVERSIDE CONTACT:		STATUS: PHONE:	ACTIVE

SEARCH ID: 4	DIST/DIR:	0.01 SW	MAP ID:	1
NAME: THE LABORERS SCHOOL ADDRESS: 36401 TRIPP FLATS RD ANZA CA 92539 RIVERSIDE CONTACT:		REV: ID1: ID2: STATUS: PHONE:	05/30/01 AST101123 AST SWRCB REG.9	)
Region: Company Name: Company Name 2:	9 THE LABORERS SCHOOL			

## Environmental FirstSearch Federal Databases and Sources

1. NPL: National Priority List. The EPA's list of confirmed or proposed Superfund sites.

Updated quarterly.

2. CERCLIS: Comprehensive Environmental Response Compensation and Liability Information System. The EPA's database of current and potential Superfund sites currently or previously under investigation.

Updated quarterly.

3. RCRIS: Resource Conservation and Recovery Information System. The EPA's database of registered hazardous waste generators and treatment, storage and disposal facilities. Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List).

Updated quarterly.

4. ERNS: Emergency Response Notification System.
The EPA's database of EPA emergency response actions.

Updated quarterly.

5. NPDES: National Pollution Discharge Elimination System.

The EPA's database of all permitted facilities receiving and discharging effluents to and from the environment.

Updated semi-annually.

6. FINDS: The Facility Index System. The EPA's Index of identification numbers associated with a property or facility which the EPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the EPA office that may have files on the site or facility.

Updated quarterly.

#### ENVIRONMENTAL FIRST SEARCH CALIFORNIA DATABASES AND SOURCES

#### CAL SITES (ST)

Source: The CAL EPA, Department of Toxic Substances Control (DTSC) Phone: (916) 323-3400

The CAL EPA Department of Toxic Substances Control (DTSC) maintains a database of information on properties (or sites) in California where hazardous substances have been released, or where the potential for such release exists. The types of properties in the CalSites database are categorized as: Annual Workplan, Backlogged Properties, Certified/Delisted Sites, No Further Action, Preliminary Endangerment Assessment in Progress, Preliminary Endangerment Assessment Required, Removal Action Required, Expedited Remedial Action Program, Voluntary Cleanup Program, Deed Restricted Properties, and Referred Properties. For more information on individual sites call the number listed above.

CORTESE (ST)
Source: The CAL EPA, Department of Toxic Substances Control (DTSC) Phone: (916) 445-6532

Pursuant to Government Code Section 65962.5, the Hazardous Waste and Substances Sites List has been compiled by Cal/EPA, Hazardous Materials Data Management Program. The CAL EPA Dept. of Toxic Substances Control compiles information from subsets of the following databases to make up the CORTESE list:

- A) The Dept. of Toxic Substances Control; contaminated or potentially contaminated hazardous waste sites listed in the CAL Sites database. formerly known as ASPIS are included (CALSITES formerly known as ASPIS).
- B) The California State Water Resources Control Board; listing of Leaking Underground Storage Tanks are included (LTANK)
- C) The California Integrated Waste Management Board; Sanitary Landfills which have evidence of groundwater contamination or known migration of hazardous materials (formerly WB-LF, now AB 3750). Track Info Services collects each of the above data sets individually and lists them separately in the following First Search categories in order to provide more current and comprehensive information: CALSITES: SPL, LTANK: LUST, WB-LF: SWL

#### SLIC NORTH BAY/SOUTH BAY (ST)

Source: The CAL EPA S.F. Bay Regional Water Quality Control Board Phone: (510) 622-2358

The CAL EPA San Francisco Bay Regional Water Quality Control Board maintains a report of sites in the north and south bay that have records of spills, leaks, and investigation cleanups. This was formerly referred to as the North Bay Toxics List and South Bay Site Management Systém. The two lists were combined with other information and now part of the North & South Bay SLIC Report.

#### SWIS SOLID WASTE INFORMATION SYSTEM (SWL)

Source: The Integrated Waste Management Board

Phone: (916) 255-2331

The California Integrated Waste Management Board maintains a database on solid waste facilities, operations, and disposal sites throughout the state of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites. For more information on individual sites call the number listed above.

Note: This database has poor locational information regarding many sites listed; therefor, some sites may not be locatable or plottable in First Search reports.

#### WMUDS (SWL)

Source: The State Water Resources Control Board

Phone: (916) 227-4365

Note: This database has poor locational information regarding many sites listed; therefor, some sites may not be locatable or plottable in First Search reports.

State Water Resources Control Board. It tracks management units for several regulatory programs related to waste management and its potential impact on groundwater. Two of these programs (SWAT & TPCA) are no longer on-going regulatory programs as described below. Chapter 15 (SC15) is still an on-going regulatory program and information is updated periodically. The WMUDS System contains information from the following agency databases: Facility, Waste Management Unit (WMU), Waste Discharger System (WDS), SWAT, Chapter 15, TPCA, RCRA, Inspections, Violations, and Enforcement's.

Notes Regarding SWAT Ranks 1-5 In a 1993 Memorandum of Understanding, the State Water Resources Control Board agreed to submit a comprehensive report on the Solid Waste Assessment Test (SWAT) Program to the California Integrated Waste Management Board. The SWAT Program began in 1984. In 1984, legislature was passed requiring testing of water and air media at all solid waste disposal sites. The law required SWRCB to rank all solid waste disposal sites in groups of 150 each, according to the threat the may pose on water quality. The law required the operators of each of the 150 sites in a given rank to submit a water quality "solid waste assessment test" (SWAT) report. Rank groups 1-5 consisted of 750 sites of which 562 submitted a SWAT Report or exemption questionnaire (undetermined leak status). Sites in ranks 1 - 5 contain some detailed information, whereas, sites in ranks 6 and beyond generally do not, therefor per the suggestion of the WRCB sites in ranks 1 - 5 were integrated with the First Search database. The SWAT Program ran from 1985 - 1995. Notes Regarding TPCA (Formerly referred to as Toxic Pits) From 1984 - 1991 the State Water Resources Control Board maintained a list of sites referred to as having Toxic Pits containing hazardous substances. Generally these sites were factories and refineries. Notes Regarding SC 15 (Formerly referred to as Sub Chapter 15) Subchapter 15 now referred to as Chapter 15 is the current regulatory program enforced by the Water Resources Control Board regarding landfills, surface impoundment's, and other sites. The WRCB maintains a database Chapter 15 to track these facilities. The Chapter 15 Program is part of the Core Regulatory Program for waste treatment, storage, or disposal sites. Statute specifically requires the State Water Resources Control Board to develop regulations to "ensure adequate protection of water quality and statewide uniformity in the siting, operation, and closure of waste discharge sites." These regulations are found in California Code of Regulations [CCR] Title 27 [solid waste, including mining waste] and CCR Title 23, Division 3, Chapter 15 [hazardous waste]. The regulations establish a classification system for waste and disposal sites and include requirements for siting, construction, operation, monitoring and cleanup, and closure. Program functions include issuance and amendment of waste discharge requirements, inspections to determine compliance, review of dischargers' selfmonitoring reports, review of other technical reports, review of closure plans, and informal and formal enforcement actions. Statewide, the Program includes over 1100 waste treatment, storage, or disposal sites (landfills, surface impoundment's, waste piles, and land treatment units).

#### LUSTIS (LU)

Source: The State Water Resources Control Board

Phone: (916) 227-4416

The State Water Resources Control Board maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks. Information for this database is collected from the states regional boards quarterly and integrated with this database.

AST Aboveground Storage Tank (US)
Source: The State Water Resources Control Board
Phone: (916) 227-4364
The Above Ground Petroleum Storage Act became State Law effective
January 1, 1990. In general, the law requires owners or operators of
AST's with petroleum products to file a storage statement and pay a fee
by July 1, 1990 and every two years thereafter, take specific action to
prevent spills, and in certain instances implement a groundwater
monitoring program. This law does not apply to that portion of a tank
facility associated with the production oil and regulated by the State
Division of Oil and Gas of the Dept. of Conservation.

Source: The State Water Resources Control Board, & CAL EPA Dept of

Toxic Substances Control Phone: (916) 227-4404

Until 1994 the State Water Resources Control Board maintained a database of registered underground storage tanks statewide referred to as the SWEEPS System. The SWEEPS UST information was integrated with the CAL EPA's Facility Index System database (FIDS) which is a master index of information from numerous California agency environmental databases. That was last updated in 1994. Track Info Services included the UST information from the FIDS database in its First Search reports for historical purposes to help its clients identify where tanks may possibly have existed. For more information on specific sites from individual paper files archived at the State Water Resources Control Board call the number listed above.

#### COUNTY, CITY, AND CUPA DATABASES & SOURCES

ALAMEDA COUNTY CUPA'S (US)

County of Alameda Source: Department of Environmental Health

Phone: (510) 567-6700

City of Berkeley Source: Toxics Management Division Phone: (510) 705-8150

City of Fremont Source: Fremont Fire Department

Phone: (510) 494-4279

City of Hayward Source: Hayward Fire Department

Phone: (510) 583-4910

Cities of Livermoore/Pleasanton Source: Livermore-Pleasanton Fire Dept.

Phone: (925) 454-2362

City of Newark Source: Newark Fire Department

Phone: (510) 790-7254

City of Oakland Source: Office of Emergency Services

Phone: (805) 862-8700 City of Bakersfield Source: Fire Department Phone: (805) 326-3979 KINGS COUNTY CUPA (US) Source: Environmental Health Services Phone: (209) 584-1411 LAKE COUNTY CUPA (US) Source: Division of Environmental Health Phone: (707) 263-2222 LASSEN COUNTY CUPA (US) Source: Department of Agriculture Phone: (530) 251-8110 LOS ANGELES COUNTY CUPA'S (US) County of Los Angeles Source: Fire Department Phone: (323) 890-4043 County of Los Angeles Source: Environmental Programs Division Phone: (626) 458-3517 City of Burbank Source: Fire Department Phone: (818) 238-3391 City of El Segundo Source: Fire Department Phone: (310) 322-4311 City of Glendale Source: Fire Department Phone: (818) 548-4030 City of Long Beach/Signal Hill Source: Bureau of Environmental Health Phone: (562) 570-4132 City of Los Angeles Source: Bureau Fire Prevention & Public Safety Phone: (213) 485-7543 City of Pasadena Source: Fire Department Phone: (626) 744-4115 City of Santa Fe Springs Source: Fire Department Phone: (562) 944-9713 City of Santa Monica Source: Environmental Program Division Phone: (310) 458-8227 City of Torrance Source: Fire Prevention Division Phone: (310) 618-2973 City of Vernon Source: Environmental Health Phone: (213) 583-8811 MADERA COUNTY CUPA (US) Source: Environmental Health Department Phone: (209) 675-7823 MARIN COUNTY CUPA (US) County of Marin Source: Office of Waste Management Phone: (415) 499-6647 City of San Rafael Source: Fire Department Phone: (415) 485-3308 MARIPOSA COUNTY CUPA (US) Source: Health Department Phone: (209) 966-0200 MENDOCINO COUNTY CUPA (US) Source: Environmental Health Department Phone: (707) 463-4466 MERCED COUNTY CUPA (US) Source: Division of Environmental Health Phone: (209) 385-7391 MODOC COUNTY CUPA (US) Source: Department of Agriculture Phone: (530) 233-6401 MONO COUNTY CUPA (US) Source: Health Department Phone: (760) 932-5261 MONTEREY COUNTY CUPA (US) Source: Environmental Health Division Phone: (831) 755-4511 NAPA COUNTY CUPA (US) Source: Hazardous Materials Section Phone: (707) 253-4269 NEVADA COUNTY CUPA (UST) Source: Environmental Health' Department Phone: (530) 265-1452 ORANGE COUNTY CUPA'S (US) County of Orange Source: Environmental Health Department Phone: (714) 667-3771 City of Anaheim Source: Environmental Protection UST Section Phone: (714) 765-4050 City of Fullerton Source: Fire Dept. Community Safety & Services Phone: (714) 738-3160 City of Orange Source: Orange City Fire Department Phone: (714) 288-2541 City of Santa Ana Source: Santa Ana Fire Department Phone: (714) 647-5700

ORANGE COUNTY LANDFILL SITES (SWL)

County of Orange

Source: Environmental Health Department Phone: (714) 667-3771

PLACER COUNTY CUPA (US)

County of Placer

Source: Division of Environmental Health Phone: (530) 889-7335

Source: Field Office Tahoe City Phone: (530) 581-6240

City of Roseville

Source: Roseville Fire Department Phone: (916) 774-5805

PLUMAS COUNTY CUPA (UST)

Source: Environmental Health Department Phone: (530) 283-6355

RIVERSIDE COUNTY CUPA (US)

Source: Environmental Health Department Phone: (909) 358-5055

SACRAMENTO COUNTY (US)

Source: Environmental Mgmt Dept, Haz. Mat. Div. Phone: (916) 875-8550

SAN BENITO COUNTY CUPA (US)

City of Hollister

Source: Environmental Service Department Phone: (831) 636-4325

SAN BERNARDINO COUNTY CUPA'S (US)

County of San Bernardino

Source: Fire Department, Haz. Mat. Div. Phone: (909) 387-3080

City of Hesperia

Source: Hesperia Fire Prevention Department Phone: (760) 947-1603

City of Victorville

Source: Victorville Fire Department Phone: (760) 955-5229

SAN DIEGO COUNTY CUPA (US)

Source: Hazardous Materials Management Division Phone: (619) 338-2242

SAN DIEGO COUNTY HE 17/58

Source: The San Diego County Dept. of Environmental Health

Phone: (619) 338-2231

PERMITS: The HE17/58 database tracks establishments issued permits and the status of their permits in relation to compliance with federal, state, and local regulations that the County oversees. It tracks if a site is a hazardous waste generator, TSD, gas station, has underground tanks, violations, or unauthorized releases. For more information on a specific file call the Haz Mat Duty Specialist at the phone number listed above.

LUST: The San Diego County Dept. of Environmental Health maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks within its HE17/58 database. For more information on a specific file call the Haz Mat Duty Specialist at phone number listed above.

SAN FRANCISCO COUNTY CUPA (US)

Source: Department of Public Health Phone: (415) 252-3991

SAN JOAQUIN COUNTY CUPA (US)

Source: Environmental Health Division Phone: (209) 468-3446

SAN LUIS OBISPO COUNTY CUPA'S (US)

County of San Luis Obispo

Source: Environmental Health Division Phone: (805) 781-5555

City of San Luis Obispo

Source: City Fire Department Phone: (805) 781-7380

SAN MATEO COUNTY CUPA (US)

Source: Environmental Health Department Phone: (650) 363-4305

SANTA BARBARA COUNTY CUPA (US)

Source: Co Fire Dept Protective Services Div Phone: (805) 681-5500

Source: Santa Clara Co Central Fire Prot. Dist. Phone: (408) 378-4010 Includes cities of Campbell, Cupertino, Los Gatos, & Morgan Hill City of Gilroy Source: Community Development Dept Phone: (408) 848-0430 City of Milpitas Source: Milpitas Fire Department Phone: (408) 942-3266 City of Mountain View Source: Mountain View Fire Department Phone: (650) 903-6378 City of Palo Alto Source: Palo Alto Fire Department Phone: (650) 329-2184 City of San Jose Source: Fire Department Phone: (408) 277-4659 City of Santa Clara Source: Santa Clara Fire Department Phone: (408) 984-4109 City of Sunnyvale Source: Department of Public Safety Phone: (408) 730-7212 SANTA CRUZ COUNTY CUPA (US) Source: Environmental Health Department Phone: (831) 454-2022 SHASTA COUNTY CUPA (US) Source: Environmental Health Department Phone: (530) 225-5787 SIERRA COUNTY CUPA (US) Source: Health Department Phone: (530) 993-6700 SISKIYOU COUNTY CUPA (US) Source: Environmental Health Department Phone: (530) 841-4040 SONOMA COUNTY CUPA'S (US) County of Sonoma Source: Department Of Environmental Health Phone: (707) 525-6560 City of Healdsburg / City of Sebastapol Source: Healdsburg Fire Department Phone: (707) 431-3360 City of Petaluma Source: Fire Marshal Phone: (707) 778-4389 Source: Santa Rosa Fire Department City of Santa Rosa Phone: (707) 543-3500 STANINSLAUS COUNTY CUPA (US) Source: Dept. of Env. Rsrcs. Haz. Mat. Div. Phone: (209) 525-6700 SUTTER COUNTY CUPA (US) Source: Department of Agriculture Phone: (530) 822-7500 TEHAMA COUNTY CUPA (US) Source: Department of Environmental Health Phone: (530) 527-8020 TRINITY COUNTY CUPA (US) Source: Department of Health Phone: (530) 623-1358 TULARE COUNTY CUPA (US) Source: Environmental Health Department Phone: (209) 733-6441 TUOLUMNE COUNTY CUPA (US) Source: Environmental Health Phone: (209) 533-5990 VENTURA COUNTY CUPA'S ((US: BWT UST'S & CERTIFIED UST'S) County of Ventura Source: Environmental Health Division Phone: (805) 654-2435 City of Oxnard Source: Fire Department Phone: (805) 385-7717 City of Ventura Source: Ventura Fire Department Phone: (805) 654-7792 YOLO COUNTY CUPA (US)

Source: Environmental Health Department Phone: (530) 666-8646 YUBA COUNTY CUPA (US)

Source: Yuba County of Emergency Services Phone: (530) 741-6254

## Environmental FirstSearch Street Name Report for Streets within .25 Mile(s) of Target Property

TARGET SITE:

BAUTISTA CANYON ROAD ANZA CA 92539

JOB:

323021000

Street Name	Dist/Dir	Street Name	Dist/Dir
Bautista Canyon Rd	0.00		
Comanche Trl	0.00		
Forest Route 6S16	0.00		
Hog Lake Truck Trail	0.03 NE		
Howard Rd	0.01 -E		•
Old Cary Rd	0.00		
Owings Dr	0.19 NE		
Tripp Flats Rd	0.01 SW		
W Bautista Canyon Rd	0.04 SE	•	
WEST Bautista Canyon	0.04 SE		
Wheat Rd	0.20 NE		

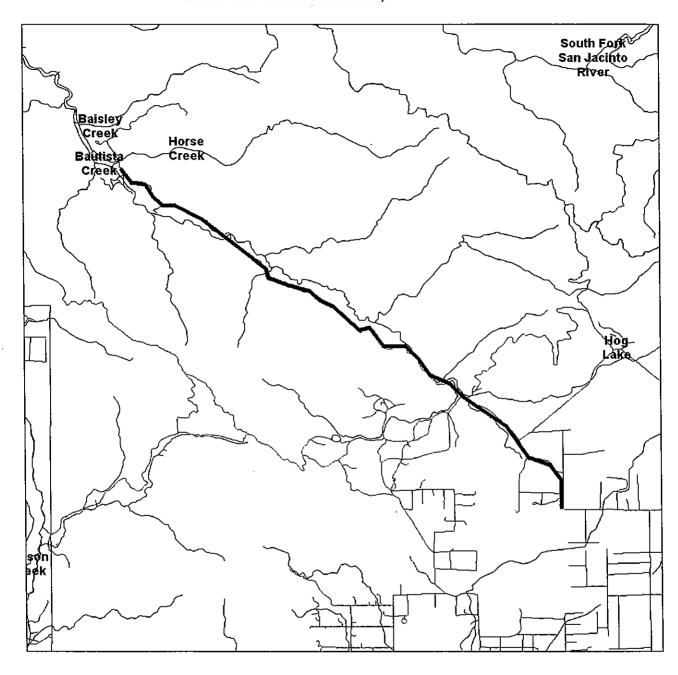


### **Environmental FirstSearch**

1 Mile Radius from Line ASTM Map: NPL, RCRACOR, STATE Sites



## BAUTISTA CANYON ROAD, ANZA CA 92539



Source: 1999 U.S. Census TIGER Files			
Linear Search Line		_	
Identified Site, Multiple Sites, Receptor	$\times$	×	<b>±</b>
NPL, Solid Waste Landfill (SWL) or Hazardous Waste			$\infty$
Railroads			

Black Rings Represent 1/4 Mile Radii: Red Ring Represents 500 ft. Radius

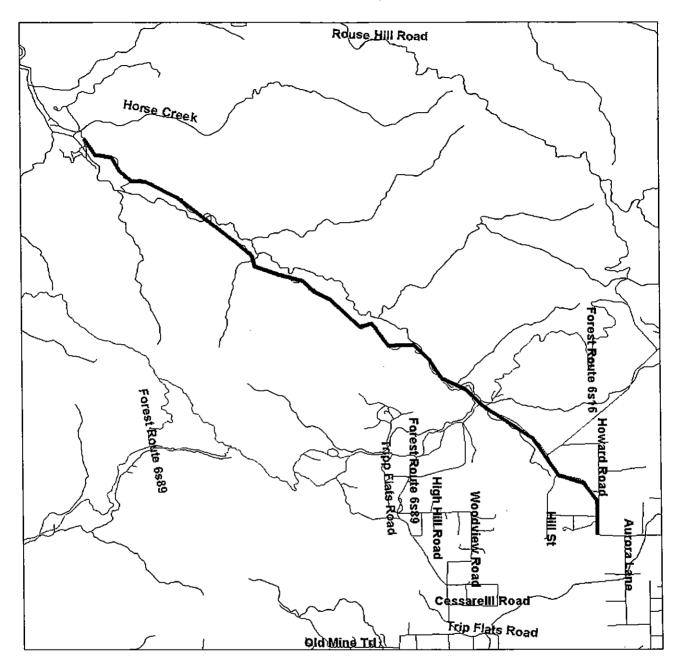


### **Environmental FirstSearch**

.5 Mile Radius from Line ASTM Map: CERCLIS, RCRATSD, LUST, SWL



#### **BAUTISTA CANYON ROAD, ANZA CA 92539**



Source: 1999 U.S. Census TIGER Files		
Linear Search Line	_	_
Identified Site. Multiple Sites, Receptor	×	•
NPL. Solid Waste Landfill (SWL) or Hazardous Waste		$\otimes\!\!\!\otimes\!\!\!\otimes$
Railroads		—

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

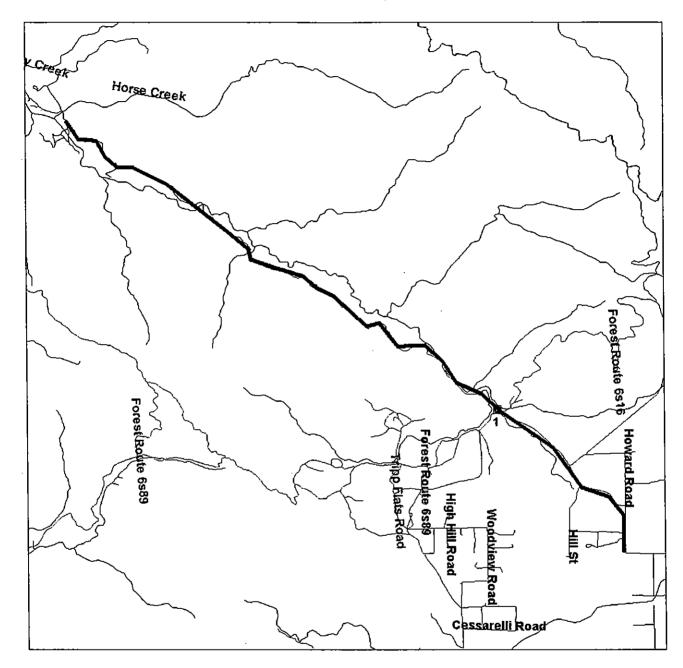


## **Environmental FirstSearch**

.25 Mile Radius from Line ASTM Map: RCRAGEN, ERNS, UST



### **BAUTISTA CANYON ROAD, ANZA CA 92539**



Source: 1999 U.S. Census TIGER Files	
Linear Search Line	_
Identified Site, Multiple Sites, Receptor	_
NPL, Solid Waste Landfill (SWL) or Hazardous Waste	$\bowtie$
Railroads	
Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft, Radius	i

## APPENDIX B

## PHOTOGRAPHS FROM SITE RECONNAISSANCE



Photograph 1. View of east side of roadway looking at road washout. Evidence of erosion control (grappel fencing and a gravel pile) are in the background.



Photograph 2. View of west side of roadway looking at open dumping of furniture, scrap metal, and other trash. The dumping extends approximately 30 - 50 feet downhill westward and approximately 50 feet north along road.





Photograph 3. View of west side of roadway looking at 4 one-gallon metal denatured alcohol containers dumped in culvert south of "main dump" site.



Photograph 4. View of west side of roadway looking northward. Evidence of a white, powdery substance that leaked down the hillside towards the culvert is seen in the foreground.





Photograph 5. View of west side of roadway looking at open dumping of a mattress and boxspring next to Bautista Creek.



Photograph 6. View of east side of roadway. Evidence of open dumping (decomposing furniture) is seen in the foreground.





Photograph 7. View of area approximately 40 feet in from the east side of roadway. Evidence of open dumping of motor oil and antifreeze containers is seen in the background. Evidence of open burning is also seen within the same area.



Photograph 8. View of same site as above showing open dumping of empty motor oil containers.





Photograph 9. View of same site as photographs 7 and 8, looking closer at containers and area of open burning.



Photograph 10. View of east side of roadway looking at open dumping of trash and the front end of an automobile.





Photograph 11. View of east side of roadway looking at evidence of open dumping of trash such as empty containers and cardboard.



Photograph 12. View of a dumped chair along east side of roadway.





Photograph 13. View of east side of roadway. Evidence of open dumping (futon couch, household wastes, paint cans, motor oil containers, and miscellaneous debris) is seen in background.



Photograph 14. View of same site as above looking closer at the evidence of open dumping of empty containers, furniture, and household waste.





Photograph 15. View of portion of the site seen in photographs 13 and 14. Evidence of open dumping of a washer and dryer is seen in the background.



Photograph 16. View of site seen in photographs 13 through 15 looking at the evidence of open dumping of furniture, paint cans, motor oil cans, household waste, and miscellaneous debris is seen in the foreground.





Photograph 17. View of west side of roadway. Evidence of open dumping of house gutters, box with used filters, and miscelleous debris is seen in the background.



Photograph 18. View of dumped sofa on east side of roadway beneath drainage pipe.



## Appendix J Interim Geotechnical Report

## CALIFORNIA FOREST HIGHWAY 224 BAUTISTA CANYON ROAD SAN BERNARDINO NATIONAL FOREST CA PFH 224-1(1)

INTERIM GEOTECHNICAL REPORT CA-FX-0224-03-01



By Matthew J. DeMarco Geotechnical Engineer

Technical Services Branch
Central Federal Lands Highway Division
Federal Highway Administration
Denver, Colorado

Distribution
Project Development (3)
CFLHD Central Files
Technical Services -Geotechnical (2)

February 2003

L:\GEOTECH\PROJECTS\CA\CA PFH 224 Bautista Canyon\Final Report\Bautista Phase 1Final Report.2-03.doc

## **Table of Contents**

		<u>]</u>	Page			
1.0	INTROD	UCTION	. 1			
2.0	LOCAL GEOLOGY2					
3.0	REGION	AL AND LOCAL SEISMIC SETTING	.4			
4.0	SITE IN	VESTIGATION PROCEDURES AND RESULTS	.5			
	<b>4.1</b> Dri	lling Program	.5			
	<b>4.2</b> Sei	smic Refraction Survey Program	.6			
	<b>4.3</b> Tes	sting Program	.7			
	4.4 Ger	neral Soil/Rock Mass Quality Findings	8			
5.0	ANALY	SES PROCEDURES	.10			
		tslopes				
	<b>5.2</b> Fill	l Slopes	12			
	5.3 Ro	adway Subgrade Evaluation	13			
6.0	DISCUS	SION AND RECOMMENDATIONS	13			
	6.1 Cu	tslope Requirements	13			
	6.2 General Earthwork Requirements15					
	6.3 Future Site Investigation Requirements15					
7.0	<b>7.0</b> REFERENCES					
<u>Appendices</u>						
Ap	pendix A	LOCATION MAPS				
Ap	pendix B	BORING LOGS AND CORE PHOTOS				
Ap	pendix C	SESIMIC SURVEY ANALYSES AND PHOTOS				
Ap	pendix D	EXISTING CUTSLOPE PHOTOS				
Аp	pendix E	ALLUVIAL SLOPE STABILITY EVALUATION				

## SIGNATURE SHEET

Report prepared by:	Matthew De Marco Geotechnical Engineer
Reviewed by:	Matthew J. DeMarco, Geotechnical Engineer  Common J. Marchy Geotechnical Engineer
Approved for distribution	1 /
	Scott A. Anderson, P.E., Lead Geotechnical Engineer  2-13-03  Date

#### 1.0 INTRODUCTION

The Central Federal Lands Highway Division (CFLHD) of the Federal Highway Administration (FHWA), in cooperation with the San Bernardino National Forest (SBNF-USFS) and County of Riverside, CA, is proposing to improve a portion of California Forest Highway 224, known as the Bautista Canyon Road. FH 224 is an approximate 35 km route between SH 74, at the town of Valle Vista, and SH 371, about 2.4 km west of the community of Anza. The project, predominantly an improved gravel road with a short section of thin asphalt pavement at the southern end, is approximately 13.2 km long and roughly follows the Juan Bautista de Anza National Historic Trail. The northern project terminus (elev. 855 m), adjacent to the Bautista Conservation Camp turnoff, is at the end of a paved road section coming from Valle Vista, approximately 16 km to the north. The southern project terminus (elev. 1263 m) is just north of the town of Anza (see Appendix A). This project involves reconstruction of much of the existing roadway to accommodate paving within improved geometrics, resulting in large fills and cuts at numerous locations and the planned construction of one major bridge structure over Bautista Creek.

The existing road, classified as a minor rural collector highway, traverses the San Bernardino National Forest, providing access to over 160 km² of National Forest, Indian Reservation, State, and private lands and various forest multiple use functions. The roadway currently supports an average-daily-traffic (ADT) of 138 at the Conservation Camp and 61 at Tripp Flats, including local passenger vehicles and maintenance trucks. The 20-year projected ADT is estimated at 1,320 at the Conservation Camp and 1,150 at Tripp Flats. The majority of the unpaved roadway is 5-6 m wide, with a native soil surface (generally decomposed granite). The condition of the road is dependent on weather and the frequency of maintenance efforts, but can generally be classified as fair to poor, suitable only for low-volume traffic. During geotechnical field investigations in December 2002, substantial precipitation over a two-day period resulted in numerous rockfalls from steep rock cuts, flooding of low water areas, expansive mud and silt washouts from soil cuts, and deep erosional furrowing at many locations along the road and within already deeply incised ditchlines.

In general, the existing roadway has the following operational and safety problems:

- Several areas with limited horizontal and vertical sight distance, often in conjunction with steep terrain and side slopes above the Canyon;
- Many places where the roadway is too narrow for vehicles to safely pass in either direction;
- · Seasonal flooding associated with low-water crossings;
- · Road washouts and rockfall caused by storm water runoff;
- Excessive roadway dust that severely restricts visibility during dry periods.

It is proposed to reconstruct the road for a design speed between 40-55 km/h, with a maximum gradient of 12 percent. The proposed typical section consists of two 3.3 m paved travel lanes, with applicable curve widening, and 0.6 m shoulders with 1V:4H foreslopes. This provides a minimum asphalt-surfaced width of 7.8 m, with applicable curve widening where required. To minimize cut slope disturbance, many locations will have a 1.0 m wide paved ditch, with a 0.9 m bench behind the ditch.

The preferred alternative generally follows the existing alignment, with several shifts to improve geometrics, while minimizing any new disturbance along the route. Ditches will be no wider than is necessary for drainage and maintenance considerations. Cut and fill slopes will be designed commensurate with good roadside safety practices, aesthetics, slope stability factors, and revegetation requirements. Cutslope rounding will be held to a width that provides a reasonable transition from new cut slopes to natural terrain. The clearing of trees and brush will be no wider than is required for constructing and maintaining the highway.

In support of this reconstruction project, a preliminary geotechnical investigation was conducted along the project in December 2002 to characterize surface and subsurface soil and rock conditions to:

- Correlate roadway subgrade parameters with data from the 1995 site investigation (described in "Preliminary Investigation, CA PFH 224-1(1), Bautista Canyon Road, San Bernardino National Forest, April 1995 – Report 95-08") to confirm existing recommendations for the structural pavement section;
- Perform interim stability analyses of existing and proposed cutslope and embankment areas, and make recommendations for future design; and
- Provide materials data to support earthwork estimation, the design of highway drainage requirements, and erosion control options for cut and fill slopes.

This interim field investigation was limited to a few roadway borings and several seismic refraction surveys, and primarily focused on determining maximum cutslope ratios for the northern two-thirds of the project for earthwork estimation. This portion of the project is more readily accessible by truck-mounted drill rig and seismic surveys. A more comprehensive subsurface investigation in difficult access areas (involving helicopter/crane rigs) will be conducted at a later date to assess bridge abutment and pier foundation requirements at Bautista Creek, and to determine maximum cutslope ratios for the large cuts (30+m) proposed within the canyon toward the southern end of the project.

### 2.0 LOCAL GEOLOGY

The project lies within the Peninsular Ranges geomorphic province of Southern California. The physiographic region is characterized by northwest-trending faults and structural blocks, creating distinct mountain ranges with intervening valleys. The province contains extensive Pre-Cenozoic igneous plutonic and metamorphic rocks, which are part of the Peninsular Batholith. This batholith measures hundreds of miles in length, with a volume of rock so vast that it rivals the Sierra Nevada Batholith of central California. The dominant structure in the vicinity of the project is the northwest-trending San Jacinto Fault Zone, which parallels the project alignment to the east. The northern third of the project project is located along the valley floor northeast of Bautista Creek (within alluvial fan deposits). The middle third of the project climbs the steep, mountainous northeast-facing flank of Bautista Canyon, and is characterized by winding roads traversing numerous secondary drainages (within granitic rocks). The southern third of the project is largely located in the canyon bottom, exiting to a broad valley floor toward Anza (granitic rocks).

The majority of surface rocks along Bautista Canyon consist of strongly foliated migmatites, including bodies of schist and quartz diorite (Santa Ana Sheet, 1966). Migmatitic gneiss and local quartzite, calcium-silicate rocks, marble, metaconglomerate, phyllite, amphibolite, locally intruded by gabbro, granite pegmatite, quartz monozonite, granodiorite, and quartz diorite are common to the San Jacinto Fault zone. Most of the granitic rock, including the monozonites and diorites, are known to weather to disintegrating boulders – seen throughout the central and southern portions of the Bautista project.

Observed parent rock within the canyon typically consists of quartz-mica schist, quartz diorite, gneiss, and felsic granitic rock. The parent rock is found in various stages of quality and weathering – ranging from fully decomposed granite to moderately weathered material. Very little hard, fresh rock was encountered during exploration drilling, despite borings being advanced to depths in excess of 15 m. The residual soils and highly weathered rock fraction typically consists of coarse sand to silty sand. These residual materials often exhibit an apparent cohesion in their natural dry state due to desiccation. However, this apparent cohesion is lost or is significantly reduced during high precipitation events – evident by the many erosional features observed within the canyon.

In the northern half of the project, Cenozoic era gravels of the Quaternary period form an alluvial fan over the aforementioned granitic rocks, which have then been dissected by Bautista Creek. These alluvial materials fill ancient erosional features, often creating laterally discontinuous deposits within exposed cutslopes. This depositional setting will likely create localized cutslope instabilities if not properly identified prior to construction (examples of this depositional setting are found in Appendix E).

During the final stages of consolidation of the batholith, hot ascending gases and hydrothermal solutions accompanied many of the granitic intrusions, resulting in veins and seams of mineralization. The volatile solutions soon crystallized, forming exceptionally granular igneous dikes and pockets, called "pegmatites." Many of these pegmatites occur throughout the San Jacinto Mountains, and are present as thin stringers to large dikes of light-colored quartz and feldspar. These structures are often mined within the region for semi-precious stones (smoky quartz, tourmaline, beryl, etc.), with one small, intermittent operation, the Crown Jewel Mine, located in Bautista Canyon. Along the central and southern portions of the project, pegmatites are remarkably persistent and occur as rows of subparallel dikes, while others may be discontinuous in extent. They generally occur as coarse crystalline structures, often heavily fractured and highly weathered, and represent a significant discontinuity impacting rock cut stability. Not only are pegmatite dikes structurally weak at near-surface exposures, they also provide conduits for water into the jointed granitic host rock.

Natural slope ratios within the canyon typically range from 1V:1.2H to 1V:2.5H. Cutslopes have been constructed at slope ratios ranging from 1.33V:1H to 3V:1H. The majority of existing cutslopes are on the order of 2-4 m in height; however, several cut-slopes extend upwards of 6-9 m in height. Observable cutslope materials range from cobbles and small boulders bound in a silty fine-to-medium sand matrix (with some apparent cohesion) – typical alluvial fan material, to moderately strong, yet well-weathered granitic rock, transected by weathered joints and dikes.

Many areas along existing cuts exhibit localized erosion, minor sloughing, and occasional wedge-block failures.

Hydrologic conditions are typical of arid mountain climates in the southwest. Annual precipitation ranges from 250-500 mm/yr across the northern valley area and into the San Jacinto Mountains to the east. Major ground cover typically consists of sparse to dense Sagebrush, Buckthorn, and Manzanita, with various willows, Cottonwood, and Oak present along the Bautista Creek drainage. Although precipitation amounts are low, events are often large (10-25 mm/hr) and sustained, resulting in localized flooding, rapid erosion of open soil slopes and cuts, and rockfall hazards along steep cuts close to the roadway.

### 3.0 REGIONAL AND LOCAL SEISMIC SETTING

The Bautista Canyon Road resides within a high seismic region, adjacent to the famous San Jacinto and Elsinore Fault Zones. Active faults in the region with the greatest potential to impact the project lie within the San Jacinto Fault Zone just east of Bautista Canyon, and include (Mualchin, 1996; Nutt, 1996):

- Casa Loma-Clark Fault A strike-slip fault, striking northwesterly (paralleling the Bautista Canyon lineament), with an MCE = 6.75M_L;
- Buck Ridge Fault A strike-slip fault, striking northwesterly just east of the Casa Loma-Clark Fault, with an MCE = 6.50M_L; and
- Hot Springs Fault A strike-slip fault, striking northwesterly off the northern end of the Buck Ridge Fault, with an MCE = 6.50M_L.

Potential peak ground accelerations (PGA) associated with these faults range from 0.4g to 0.5g, based on the deterministic approach used to generate the State of California Maximum Credible Earthquake (MCE) Seismic Acceleration Map (Mualchin, 1996). Adjustments to the PGA, based on amplification factors developed by the Applied Technology Council for various soils types (Nutt, 1996), results in a PGA range of 0.32g to 0.4g for a Type B soil – rock with shear wave velocity of  $760 \text{m/s} < V_s < 1,500 \text{ m/s}$  (moderately weathered granitic rocks). Despite these relatively high horizontal accelerations, the ATC does not recommend inclusion of earthquake loads in stability analyses of walls less than 10 m high, relying instead on static earth pressure design approaches. [Walls may include bridge abutment structures.] It should also be mentioned that the Buck Ridge/Casa Loma strand fault system, adjacent to the project area, is the least active in the San Jacinto Fault Zone.

Based on AASHTO Division IA – Seismic Design guidelines (AASHTO, 1996), a maximum horizontal acceleration of 0.6g was selected for the Bautista Canyon Road from Figure 1-5, "Map of Horizontal Acceleration in Rock with 90% Probability of Not Being Exceeded in 50 Years." Site Coefficients (S) should be selected for a Soil Profile Type I for bridge and wall design – rock with  $V_s > 760$  m/s or stiff soil conditions < 60 m deep, overlying rock.

Liquefaction may be an issue at the proposed bridge location crossing Bautista Creek. Surface reconnaissance, coupled with seismic refraction data along the creek bottom (Appendix C, Line

14), indicates the presence of moderate-to-loose compacted sands (with unknown quantities of silt) potentially extending to a depth of 6 m at the proposed center pier location. These sands may occasionally be fully saturated, or may support a fairly shallow water table for extended periods, possibly within a liquefaction range of 0-6m from the surface (though a water table was not identified in the seismic refraction data following a large precipitation event). No other potential liquefaction sites appear to impact the proposed route:

### 4.0 SITE INVESTIGATION PROCEDURES AND RESULTS

In December 2002, CFLHD conducted interim surface and subsurface soil and rock quality investigations at a limited number of locations along the project. More specifically, (1) six deep coreholes were advanced to obtain information for cutslope/thru-cut construction and global stability assessments, (2) six shallow auger borings were advanced along the roadway to confirm subgrade characterization for eventual pavement design, (3) fourteen seismic refraction lines were surveyed to further characterize subsurface conditions at proposed cutslopes (many in difficult access areas), and (4) a preliminary visual assessment of cutslope geology and structure was conducted to identify failure modes limiting maximum cutslope ratios. The seismic refraction surveys/analyses and preliminary rock cut mapping was conducted by the CFLHD Geotechnical Group. Both the deep borings and subgrade borings were coordinated and supervised by Kleinfelder, Inc., Redlands, CA, and described in the report entitled "Geotechnical Data Report, Bautista Canyon Road, Riverside County, CA," dated January 6, 2003. [Note: The findings presented in this report regarding interim cutslope ratios along the proposed alignment supersede those presented in the Kleinfelder report.]

The primary purpose of this initial subsurface investigation was to better define maximum safe cutslope ratios within the northern and central sections of the project. Future subsurface investigations will focus on drilling difficult access sites, including several large rock cuts within the canyon on the southern end of the project and the bridge abutment and pier foundations at the Bautista Creek crossing, Station 303+020, and conducting more detailed geologic structure mapping along the central and southern portions of the project.

### 4.1 DRILLING PROGRAM.

Ruen Drilling, Clark Fork, ID, performed all core drilling using a Christensen CS-1500 truck-mounted rotary core drill. All six borings were advanced with an HQ-3 wireline system for continuous coring from the surface. Weathered rock was generally encountered in the first 0.5 m, if not immediately, so Standard Penetration Tests (SPT's) were not conducted at any of the borings. Recovered core was initially logged and photographed on-site by a Kleinfelder Geotechnical Engineer, and then transported to the Kleinfelder Redlands office for formal logging by a company Geologist. Once completed, all of the core samples were shipped to CFLHD for further review and testing.

Cal Pac Drilling, Calimesa, CA, performed the subgrade drilling using a truck-mounted B-53, 200-mm, hollow stem auger drill. Six borings were advanced to a depth of 1.5 m below existing roadway grade, with bulk samples logged and then shipped to CFLHD for materials testing. Of

the nine original auger borings planned, only the four on the south end of the project could be sufficiently cleared of underground utilities. The five borings on the northern end of the project were ultimately replaced by two borings drilled in areas where utility clearance was provided.

Table 4-1 summarizes all of the borings advanced for cutslope and pavement investigation, including soil samples taken in 1995 for subgrade characterization. Boring location maps for work conducted in 2002 are presented in Appendix A. Detailed boring logs and core photos are presented in Appendix B, and are further discussed in the aforementioned Kleinfelder report.

Table 4-1. Compilation of drilling program undertaken December 2002, and subgrade evaluation conducted in 1995.

Boring No.	Station	Offset (m)	Depth (m)	General Findings
Core Holes	<u> </u>			
C-1	304+385	13 m LT	10.1	QUARTZ DIORITE with felsic pegmatite dikes
C-2	305+180	1.5 m LT	10.0	QUARTZ DIORITE with felsic pegmatite dikes
C-3	305+520	1.5 m LT	8.5	QUARTZ DIORITE with felsic/mafic pegmatite dikes
C-4	306+000	1.2 m RT	10.1	QUARTZ DIORITE
C-5	306+330	1.8 LT	10.0	QUARTZ DIORITE
C-6	307+050	CL Service Road	18.3	GNEISS with felsic pegmatite dike
Subgrade Bori	ngs – 2002			
B-1	301+725	4 m LT	. 1.5	Brown SILTY SAND
B-2	303+295	3.5 m RT	1.5	Yellow-brown SILTY SAND
B-3	309+000	3.5 m LT	1.5	Brown SILTY SAND
B-4	310+000	3 m LT	1.5	Dark brown SILTY SAND
B-5	311+000	2.5 m LT	1.5	Dark brown SAND
B-6	312+000	1 m RT	1.5	Dark brown SILTY SAND
Subgrade Bori	ngs – 1995¹			
95-211-RV	MP 1.15	Cutslope LT	0.3	Red-brown DECOMPOSED GRANITE
95-212-RV	MP 2.35	Cutslope RT	0.3	Red-brown DECOMPOSED GRANITE
95-213-RV	MP 3.55	Cutslope RT	0.3	Yellow-brown DECOMPOSED GRANITE
95-214-RV	MP 4.80	Cutslope RT	0.3	Light brown DECOMPOSED GRANITE
95-215-RV	MP 6.00	Cutslope RT	0.3	Light brown DECOMPOSED GRANITE
95-216-RV	MP 7.20	Cutslope RT	0.3	Brown DECOMPOSED GRANITE

¹Milepost stationing is shown as described in the CFLHD 1995 roadway materials report. Milepost 0.0 was at the end of pavement at the north end of the project near the entrance to the Bautista Conservation Camp.

### 4.2 SEISMIC REFRACTION SURVEY PROGRAM

In addition to the subsurface drilling program undertaken in December 2002, fourteen seismic refraction surveys were conducted at various locations to better define the apparent strength and continuity of existing alluvial soils and granitic rock masses. Surface seismic lines ranged from 40-60 m in length, not including "off-end" source locations, with geophones placed on nominal 5-m centers. Lines were located to characterize (1) different geologic settings, (2) rock mass conditions adjacent to planned coreholes for "calibration" of the velocity data to actual rock units, (3) major proposed cut locations remote to planned drilling (during this initial investigation), and (4) the pier foundation materials at the proposed bridge. Table 4-2 summarizes the purpose and location of the seismic surveys, and Appendix C provides

background information on the methodology (including technical limitations), selected site photos, and final velocity profiles.

Table 4-2. Sei	smic refraction	survey !	locations.
----------------	-----------------	----------	------------

Line No.	Approx. Survey Stationing	General Location						
1	301+090 - 301+140	On proposed alignment.						
2	302+560 - 302+620	On proposed alignment.						
3	303+760 - 303+800	In cut above proposed alignment.						
4	303+880 - 303+940	In cut above proposed alignment.						
5	304+395 – 304+445	In cut above proposed alignment.						
6	305+050 – 305+100	In cut above proposed alignment.						
7	305+410 - 305+470	On existing road along proposed alignment.						
8	305+840 – 305+900	On existing road along proposed alignment.						
9	306+150 - 306+210	On existing road along proposed alignment.						
10	306+340 – 306+400	In cut above proposed alignment.						
11	307+030 - 307+090	On proposed alignment.						
12	308+480 - 308+540	On proposed alignment.						
-13	308+690 - 308+750	On proposed alignment.						
14	303+015 – 303+015	Perpendicular to proposed bridge alignment.						

### 4.3 TESTING PROGRAM

Laboratory tests were performed on selected samples to confirm design parameters developed in 1995 for pavement design and culvert material selection, and to quantify *intact rock strengths* for qualitatively characterizing proposed rock cuts. Rock-on-rock shear strengths were <u>not</u> conducted in support of rock cut failure analyses due to the wide range of joint conditions observed along the route (surface roughness, degree of weathering, degree/type of infilling, and aperture vary substantially across a single cut exposure). Physical property tests conducted to date, including subgrade analyses performed in 1995, are presented in Table 4-3.

Resistivity and pH test results for subgrade soil samples are presented in Table 4-4. Per FP-96, Section 704.10 Select Granular Fill, and FHWA-HI 97-013 "Design and Construction of Driven Pile Foundations," test results indicate that the silty sand soils are non-aggressive; however, chloride and sulfate corrosion potential should be checked if steel piles are to be used as deep foundations for piers/abutments at the Bautista Creek crossing. Because two of the samples showed resistivity values close to the minimum standard, additional electrochemical tests will conducted during future site investigations (described at the end of this report).

Shrink-swell factors were estimated for the project based on data presented in Table 6-12, "Shrink/Swell Factors for Common Materials," in the Federal Lands Highway Project Development and Design Manual. A shrinkage factor of 10% is estimated for the silty sand alluvial soils present along the northern third of the project, when placed in embankments. This value may underestimate actual shrinkage (depending on material use) since it does not include cobbles and small boulders present throughout the alluvial deposits. This same value is used for decomposed granite and for the transition zones from decomposed granite to highly weathered rock. A swell factor of 15% is estimated for the weathered rock units on the lower two-thirds of the project, when placed in embankments. Although swell values for igneous rocks average 43%

Table 4-3. Compilation of physical property testing conducted to date (1995 and 2002), CA PFH 224-1(1) Bautista Canyon Road.

Milepost stationing is shown as described in the CFLHD 1995 roadway materials report. Milepost 0.0 was at the end of pavement at the north end of the project near the entrance to the Bautista Conservation Camp.

2NA - Not Available; NV - No Value; NP - Not Plastic.

(not simply within existing jointing) is interspersed with moderately strong rock within the recovered core column – suggesting the possibility for failure through weak, highly erodable zones in new cut exposures.

Within the canyon toward the southern third of the project, the granitic rock mass takes on a different weathering characteristic – forming large, discrete blocks and boulders. The southern side of the existing road, where the proposed alignment shifts substantially up and into the slope, is heavily brushed making outcrop observation or surface structure mapping nearly impossible. Observations on the exposed northern slope across the canyon suggest a more regular, orthogonal joint pattern is present in this area, resulting in the large block erosional features located high on the proposed cutslopes. Geologic mapping and cutslope drilling will be conducted along this segment under future exploration work.

Groundwater was not encountered within any of the deep borings on the elevated central section of the project. Due to the arid environment and deeply weathered rock conditions encountered, it is unlikely that a measurable water table will exist within any of the proposed cuts on the northern and central sections of the project. Several seeps, however, have been identified at the toe of the planned major cuts in the lower canyon portion of the project. Future exploratory drilling in this area will reveal whether or not water can be expected in the cuts. All of the cuts along the project show significant erosion (see photos in Appendix D), particularly within the softer materials at the crest of the cut. Although much of the project is well vegetated above the cuts, the steepness of the existing cuts has largely precluded substantial groundcover revegetation. Based on a seismic refraction survey (Line 14), a sustained water table was not clearly delineated within 4-6 m of the surface at the proposed pier location for the bridge crossing Bautista Creek.

### 5.0 ANALYSES PROCEDURES

The following describes the preliminary design values and general methodology employed to assess the stability of cutslopes, fills, and roadway subgrade.

### **5.1 CUTSLOPES**

Approximately 30 proposed cutslopes exist along the project, ranging in planned excavated height from 3-30 m. Existing cutslope ratios range from 1V:2H to 4V:1H, with *interim* designed slope ratios ranging from 1V:1H for alluvial soil and decomposed granite slopes to 2V:1H for all rock cuts. Interim designs were based on field observations of stable slope ratios vs. slope height, material type present, erosion issues, results of seismic surveys correlated to boring logs, and preliminary mapping of rock mass discontinuities.

Following this initial assessment of cutslope requirements, an analysis was conducted on the global stability of moderate-to-large alluvial cuts, 6-10 m, using the XSTABL program and the Simplified Bishop Method for slope stability assessment. Soil parameters used in this evaluation are presented in Table 5-1. These values represent conservative estimates based on engineering judgment of the silty sand fraction of the alluvial soils encountered along the entire route for soil

slopes excavated at 2V:1H slope ratios for heights ranging from 12-25 m, catchment widths range from 3-5 m. If further site investigation reveals that the large cuts in the southern end of the project can be steepened, then the catchment widths can be approximately cut in half for slope heights up to 15 m (45 ft). Taller slopes will still require the 5 m (16 ft) catchments. A cost-effective alternative is to use a removable barrier system and 3-m-wide catchment, to minimize catchment width and cut excavation, and allow for periodic maintenance, as required.

### **5.2 FILL SLOPES**

There are approximately 30 fill slopes and embankments distributed along the project, ranging in height from 3-12 m. Currently, all fill slopes have been designed as non-reinforced fills at 1V:2H slope ratios. The recommendation has been made to investigate the use of reinforced fill slopes, steepening the slope ratio to 1V:1.5H, which for the soils and loading conditions present should require minimal quantities of slope reinforcement based on past experience. An evaluation of fill slope reinforcement options was not conducted as part of this interim geotechnical investigation, but will be conducted following future, more comprehensive site investigations. Substantial fill locations are listed in Table 5-2.

Table 5-2. Substantial embankment fill locations.

Approximate Stationing	Proposed Max. Fill	Existing Slope Ratio	Comments/Fill Description					
Ctationing	Depth, m	(V:H)						
300+295 to 300+410	4 m	NA	Thru-fill with 1:2 slopes for heights greater than 2 m.					
300+525 to 300+890	6'm	1:3	Thru-fill/embankment fill over gently sloping terrain.					
300+985 to 301+090	7 m	1:7	Thru-fill over flat to gently sloping terrain.					
301+145 to 301+380	6 m	1:1.5 – 1:2	Thru-fill/embankment fill over gently sloping terrain.					
301+475 to 301+700	4 m	1:5	Thru-fill over flat-gently sloping terrain.					
301+780 to 301+990	7 m	NA	Thru-fill over flat-gently sloping terrain.					
302+140 to 302+440	8 m	NA	Thru-fill over flat-gently sloping terrain.					
302+690 to 302+765	3 m	1:2	Embankment fill over 1:2 side slopes.					
302+915 to 302+950	6 m	1:1.5 – 1:2	Thru-fill/embankment fill over gentle-steeper terrain.					
302+990 to 303+220	12 m	NA	Thru-fill over flat-gently sloping terrain.					
303+610 to 303+680	3 m	1:2 - 1:5	Embankment fill over gentle to 1:2 side slopes.					
303+820 to 303+885	6 m	1:2	Thru-fill/embankment fill over gentle-1:2 side slopes.					
303+940 to 304+020	6 m	1:3	Thru-fill/embankment fill over gently sloping terrain.					
304+480 to 304+550	6 m	1:1 - 1:1.5	Embankment fill over steeper side slope.					
304+550 to 304+670	9 m	1:2	Thru-fill/embankment fill over gentle-steeper terrain.					
304+710 to 305+010	6 m	1:1 - 1:4	Thru-fill/embankment fill over gentle-steep terrain.					
305+210 to 305+230	6 m	1:5	Thru-fill over gently sloping terrain.					
305+300 to 305+320	3 m	1:3	Embankment fill over gentle side slope.					
305+570 to 305+635	12 m	1:2	Embankment fill over 1:2 side slopes.					
305+695 to 305+740	6 m	1:1.5	Embankment fill over steeper side slope.					
305+890 to 305+955	9 m	1:2	Embankment fill over 1:2 side slopes.					
306+080 to 306+150	6 m	1:2	Embankment fill over 1:2 side slopes.					
306+220 to 306+245	6 m	1:1.5 – 1:2	Embankment fill over 1:2 to steeper side slopes.					
306+495 to 306+530	5 m	1:1 - 1:3	Embankment fill over gentle slope and steep slope.					
306+600 to 306+905	7 m	NA	Thru-fill over flat-gently sloping terrain.					
307+160 to 307+320	6 m	NA	Thru-fill over flat-gently sloping terrain.					
307+320 to 307+460	3 m	1:1-1:2	Embankment fill over 1:2 to steeper side slopes.					

Table 5-2. Substantial embankment fill locations (cont'd.)

Approximate Stationing	Proposed Max. Fill Depth, m	Existing Slope Ratio (V:H)	Comments/Fill Description
307+755 to 307+930	5 m	1.1 - flat	Embankment fill over gentle slope and steep slope.
308+320 to 308+400	4 m	1:1.5 - flat	Embankment fill over gentle slope and steep slope.
308+560 to 308+660	4 m	1:1.5 - flat	Embankment fill over gentle slope and steep slope.
308+740 to 309+020	4 m	NA:	Thru-fill over flat-gently sloping terrain.

### 5.3 ROADWAY SUBGRADE EVALUATION

The purpose of the roadway subgrade investigation was to confirm the material types, gradations, plasticities, and R-values reported in the 1995 CFLHD investigation, entitled "Bautista Canyon Road — Preliminary Investigation, Report No. 95-08." At present, redesigning the proposed pavement section is not required based on the data presented in Table 4-3 (similar soil types and R-values encountered). The recommended structural section, based on this past report, includes 75 mm of hot asphalt concrete pavement (HACP) over 150 mm of crushed aggregate base.

### 6.0 DISSCUSSION AND RECOMMENDATIONS

The following section presents recommendations for cutslope excavations at specific locations, preliminary erosion control measures required on fill slopes and cutslopes, and general earthwork requirements.

### **6.1 CUTSLOPE REQUIREMENTS**

The following recommendations address several specific design and construction goals, stemming from discussions with USFS personnel during on-site meetings in 2002.

- (1) Provide optimal cutslope designs that ensure long-term global and discrete-block stability along the project, providing for high degrees of roadway safety;
- (2) Provide cutslope designs that achieve long-term surface stability, recognizing the physical constraints imposed by varying rock and soil conditions along the project;
- (3) Establish effective, long-term erosion control employing the latest technologies to stabilize newly excavated cuts and promote long-term revegetation whenever possible;
- (4) Develop aesthetically pleasing landscapes throughout the project.

### General Recommendations

• The red-tan silty sand alluvial soils will stand at 1V:1H slope ratios for the aforementioned design criteria to approximate 10 m slope heights (estimated to be above the maximum alluvial slope heights on the project). Although this is the maximum stable slope design for the alluvial soils, it may not be the preferred alternative due to erosion/revegetation concerns.

- Revegetation of the alluvial soil cutslopes will require substantially shallower slope ratios. None of the existing alluvial cutslopes with slope ratios of 1V:1H or greater have revegetated significantly.
- Erosion control for all alluvial cutslopes should include furrow ditches along the cut crest to divert run-off and/or water checks along the slope, otherwise deep erosional furrows/rills will be incised down the cut following the first major precipitation event. Shallower slope ratios used to promote revegetation may benefit from erosion control products such as an American Excelsior Curlex II blanket, Soil Guard bonded fiber matrix, or equivalent matting. These types of products are biodegradable with a design life of up to two years. Serrated buckets should not be used for final grading of slopes to ensure maximum slope face contact with the chosen erosion control application. It should be noted that substantial precipitation events occur in the area, requiring a fairly robust erosion control matting to retain the soil mass. Rounding should be minimized to the extent possible to take advantage of the existing vegetation root mass for erosion control (difficult to get things to grow once removed).
- Rock cuts, until additional information is acquired for the high cuts in Bautista Canyon, should be excavated to 2V:1H slope ratios. This slope ratio is present within a majority of the existing rock cuts along the project and appears to be stable with no major rockfalls attributed to the design. At present, structure mapping along the central portion of the project has not indicated the regular occurrence of adverse jointing. The dominantly occurring, steeply dipping joints mapped along this section generally run oblique to the cut and do not adversely daylight in the cut. Less frequent and persistent low-angle jointing occasionally intersects these steeper joints, creating isolated wedge blocks; however, this failure mode is rarely observed along the route. As more information becomes available in forthcoming site investigations, it may be possible to significantly steepen specific cuts.
- Rock cuts along the central portion of the project are generally overlain by thin decomposed granite soils, requiring minimal rounding and erosion control measures. However, in the transitional region between the northern and central sections of the project it is common to find several meters of alluvium sitting atop stronger granitic rocks. Heavy rounding, crest furrowing, and erosion control matting measures may be required to mitigate severe erosion within the alluvium.
- Rockfall catchment ditches will be required, beyond planned ditch dimensions, for rock cut heights greater than 10-12 m. For the high cuts, catchments can extend to 5+ m widths. Barriers with 3-m-wide catchments are the preferred alternative to minimize excavation quantities and slope heights.
- Compound slopes should only be used when it is possible to clearly define the extent of
  stronger materials in the lower section of the cut. If minor amounts of weathered rock or
  decomposed granite comprise the lower section of the cut, with substantial alluvial soils
  above, consideration should be given to laying the entire slope back to 1V:1H and tracking
  topsoil onto the lower portion of the cut. With proper erosion control, it is possible that
  revegetation will take.
- In areas where thick alluvial deposits overlie granitic rocks, lateral continuity of the alluvium will determine the ultimate slope angle required. In many locations on the north end of the project thick alluvium fills deeply incised erosional troughs immediately adjacent to competent rock.

Table 6-1 provides interim recommendations for cutslopes along the proposed Bautista Canyon Road project, pending further subsurface investigations.

### 6.2 GENERAL EARTHWORK REQUIREMENTS

Surface mapping of soil and rock conditions along the northern and central segments of the project, coupled with the subsurface investigation results described earlier, indicate that excavation may be problematic along the project. Dense silty sands with boulder material will be encountered in the northern portion of the project, along with possible mixed cutslope conditions (alluvium and outcropping rock). Although drilling indicated highly weathered, jointed granitic rock throughout the central portion of the project, pneumatic rock breakage or blasting may be required in large cuts where less weathered granitic or gneissic rock is encountered. The high cuts in the southern portion of the project, in Bautista Canyon, will most likely require blasting as well to achieve sufficient fragmentation of the large blocks for efficient handling. Due to the weathered and jointed nature of the rock mass, special attention must be paid to production blasting prior to final trim blasting to minimize overbreak (due to jointing and dikes) and blast damage to the final cut face. Scaling, and possibly spot bolting, will be critical elements in arriving at stable rock cuts along Bautista Canyon.

Alluvial materials on the northern end of the project may be used for Unclassified Borrow (Section 704.06), Select Borrow (Section 704.07), and Select Topping (Section 704.08), per the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP-96). The contractor will be required to screen for the specified gradations due to higher fines contents within the in situ material. Crushing may also be required to achieve the gravel fraction required for Select Borrow.

### 6.3 FUTURE SITE INVESTIGATION REQUIREMENTS

The primary purpose of the initial site investigation was to identify/characterize soil-rock parameters along the proposed alignment to better define maximum cutslope ratios for the northern two-thirds of the proposed alignment, and to determine future geotechnical investigation needs. The following summarizes future investigations required to arrive at final design recommendations:

• Additional core drilling is required at the following locations:

Stationing	Construction Feature	Site Access
302+600	Thru-cut	Helicopter rig ¹
302+880	Thru-cut	Helicopter rig ²
302+990	Bridge abutment	Helicopter rig ²
303+040	Bridge pier	Helicopter rig1
303+050	Bridge abutment	Helicopter rig ^{1, 2}
307+700	Thru-cut	Helicopter rig ²
308+090	Thru-cut	Helicopter rig ²
308+290	Thru-cut	Helicopter rig ²
308+490	Thru-cut	Helicopter rig ²

¹ Helicopter access required due to USFS concerns regarding drill road development.

² Indicates borings requiring core orientation/downhole video for structure mapping.

- Oriented core or downhole video structure mapping is required for most of the remaining coreholes listed above. These borings are investigating either bridge abutments/piers or large (26+m) cuts where detailed joint information is necessary to determine final construction limits, foundation designs, etc.
- Detailed surface geologic structure mapping is required at additional locations along the
  central portion of the project, and on the limited rock outcrop exposures along the southern
  canyon section a section where little is currently known about the rock mass. This effort
  should encompass a detailed rock mass kinematics analysis, identifying potential failure
  conditions in planned rock cuts.
- Following field mapping and data analyses, final design recommendations should be developed for large rock cuts, including recommendations for rock mass stabilization, as required.
- Material density measurements should be conducted to arrive at more accurate shrink-swell values for the project.
- Fill slope ratios, construction methods, and reinforcement design options for various steepened fill slope ratios should be further developed. Erosion control measures specific to fills steeper than 1V:2H should also be determined.
- Topsoil locations and stripping depths should be determined with the assistance of USFS personnel.
- Bridge foundation recommendations should build on the seismic information acquired to date and additional pier borings, recommended herein, focusing on deep foundation alternatives for yet-to-be-determined scour depths, groundwater levels, and soil/rock reactivity within the Bautista Creek drainage. Box culvert bearing capacities should also be developed.
- Special Contract Requirements (SCR's) should also be prepared following completion of the final cutslope, fill slope, and structure foundation designs.

Table 6-1, Existing and proposed cutslopes based on interim site investigation, CA PFH 224 Bautista Canyon.

Comments on Recommended Cutslope Ratios	Alluvial material with unknown depth to bedrock (but assumed well below planned cut). Revegetation may be established on 1:2 slopes.	Alluvial material with unknown depth to bedrock (but assumed well below planned cut). Revegetation may be established on 1:2 slopes.	Alluvial material mixed with DG over highly weathered outcropping rock units. Will stand at 1.33:1 through rock units with substantial rounding and erosion control at top of cut.	Proposed alignment deviates greatly from the existing road at this location. 2-6 m alluvium over variably weathered rock, requiring broken slope to minimize excavation quantities for deep cut.	Foliation of the granitic rock units in this area may require keeping the slope at 1:1 to avoid planar failures. A maximum slope ratio of 2:1 may be employed in the stronger, less structured rock sections. Detailed mapping will be done in conjunction with planned future site investigations.	This thru-cut leads up to the northern bridge abutment. Outcropping rock in Bautista creek suggests a 2:1 slope ratio will work; however, boring/structure mapping is needed to confirm potential failure mechanism within the cut.	Variable cutslope ratios are shown through this section, ranging from 1:1 to 1:2. Revegetation may be established on 1:2 slopes for the relatively small cut heights.
Shrink/Swell Factor	10% shrink		10% shrink	10% shrink 1 (primarily ealluvium and DG)	15% swell	15% swell 8	10% shrink
Rec'd Max. Cutslope Ratio (V:H)	1:1 (1:1.5 reveg)	1:1 (1:1.5 reveg)	1.33:1	1:1 (alluvium) 2:1 (rock)	2:1 – 1:1	2:1	1:1 (1:1.5 reveg)
Existing Cutslope Height (m)	2	, .	'n	NA	NA	NA	2
Existing Slope Ratio (V:H)	1:1	1:2	1:1.5	1:1	1.5:1 – 1:1.5	1:5 - flat	1:1 – 1:1.5
Degree of Weathering	NA	NA	НW	HW (to MW at proposed cut)	нм - мм	HW	HW
Material Type	Alluvium	Alluvium over Decomposed Granite	Alluvium over Decomposed Granite	Alluvium/DG over weathered granitic rocks	Alluvium/DG over weathered granitic rocks	DG over weathered granitic rocks	Alluvium over Decomposed Granite
Approximate Stationing	300+410 to 300+525 Thru-cut	301+090 to 301+150 Thru-cut	301+300 to 301+460 Cutslope	302+460 to 302+700 Thru- cut/cutslope	302+765 to 302+915 Thru- cut/cutslope	302+950 to 302+990 Thru-cut, bridge abutment	303+230 to 303+350 Thru-cut

Table 6-1. Existing and proposed cutslopes based on interim site investigation, CA PFH 224 Bautista Canyon (cont'd.).

			;			1, 0, 1, 10	O Description
Approximate	Material	Degree of	Existing	Existing	Kec'd Max.	Surinkoweii	Collineans on Reconninence Carstope
Stationing	Type	Weathering	Slope	Cutslope	Cutslope	Factor	Katios
			Ratio (V:H)	Height (m)	Ratio (V:H) ¹		
303+420 to	Alluvium over	HW	2:1 – 1:1	3	2:1 - 1:1	0% swell	Highly weathered rock exists in the bottom of
303+600	Decomposed					(half soil/half	the existing cut, suggesting a 2:1 slope with
Cutslone	Granite	•				weathered	heavy rounding in the alluvium/DG top section
	)		-			rock)	may be possible. Otherwise, a 1:1 maximum
		-	_		_	`	slope ratio shall be maintained.
303+680 to	A Ilmvinm/DG	HW – MW	1.5 – 1:1	5	2:1 - 1:1	0% swell	Highly weathered rock exists in the bottom of
303+825	over weathered		<u>:</u>			(half soil/half	the existing cut, suggesting a 2:1 slope with
T-1-1	Crossitio rooks		-			weathered	heavy rounding in the alluvium/DG top section
Tur-cut	gramme rocks					rock)	may be possible. Otherwise, a 1:1 maximum
	willi quanz	٠.				-	slope ratio shall be maintained.
303+880 10	DG over	МH	2:1	∞	2:1	15% swell	High weathering and substantial jointing
303:000	weathered	:    -					(subvertical and non-failure plane forming)
Cutelone	granitic rocke			, -			indicate the potential for rapid weathering of
custope	grainte rocks			,			the proposed cut, requiring a maximum 2:1
	With quarte			. •		-	cutslope with erosion control.
304+030 to	Alluvium over	HW	1:1	2	1:1	10% shrink	Variable cutslope ratios are shown through this
304+195	Decomposed				(1:1.5 reveg)		section, ranging from 1:1 to 1:3. Revegetation
Then-cut	Granite			•			may be established on 1:2 slopes for the
ווייים ו	2						relatively small cut heights,
304+200 to	DG over	HW - MW	2:1-1:1	9	1:1	0% swell	Highly weathered rock exists in the bottom of
304+545	weathered	: ! !		•		(balf soil/half	the existing cut, suggesting a 2:1 maximum
Thui-	oranitic rocks		_	•		weathered	slope with heavy rounding in the alluvium/DG
cut/cutelone	with anartz			•		rock)	top section may be possible. Otherwise, a 1:1
odorsmo	dikes	. •		•		•	maximum slope ratio shall be maintained.
				•			Boring at this location shows substantial
_				•			weathered jointing and heavy dike presence to
							10 m depth.
2000 12	2010	TIM.	3.1 - 1.1	3	2:1	15% swell	Highly weathered granitic rocks and dikes
304+620 to	DO OVEL			<b>.</b>	(1:1.5 reveg)		indicate a maximum 2:1 slope ratio with
504+040	granitic rocke				3	-	rounding and erosion control. Revegetation
Cuisiope	graining rocks				•		may be established on 1:2 slopes for the
	will quark						relatively small cut height sections.
	- CLINOS			].			

Table 6-1. Existing and proposed cutslopes based on interim 1 site investigation, CA PFH 224 Bautista Canyon (cont'd.).

	elobe				<b>ص</b>	tential	۔۔	erosion		-	<b>*</b>		ting the	ditch.	hered			3		Jing	ьп			very	igh	long	highly			very	կեն	long	highly	_
	ended Cut			i	ntial jointin	icate the po	proposed cu	itslope with		veathering,	and very lo	hows minor	ints, sugges	catchment	highly wear	•	veathering,	and very lo	hows high	l minor rave	vy roundin	l section.	veathering,	and low to	pe shows h	r raveling a	required in		veathering,	and low to	pe shows h	r raveling a	required in	
	n Kecomm	Ratios			and substa	g slope) ind	ring of the p	mum 2:1 cu		nows deep \	se jointing,	rent slope s	eathered jo	er slopes or	required in	•	nows deep	se jointing,	rent slope s	ill dikes and	joints. Hea	y weathered	ows deep v	se jointing,	current slo	es and minc	Rounding	ction,	ows deep v	se jointing,	current slo	es and mino	Rounding	ction
	Comments on Recommended Cutslope				High weathering and substantial jointing	(creating raveling slope) indicate the potential	for rapid weathering of the proposed cut,	requiring a maximum 2:1 cutslope with erosion	rol.	Nearby boring shows deep weathering,	potentially adverse jointing, and very low	RQD's. The current slope shows minor	raveling along weathered joints, suggesting the	need for shallower slopes or catchment ditch.	Heavy rounding required in highly weathered	on.	Nearby boring shows deep weathering,	potentially adverse jointing, and very low	RQD's. The current slope shows high	frequency of small dikes and minor raveling	along weathered joints. Heavy rounding	required in highly weathered section.	Nearby boring shows deep weathering,	potentially adverse jointing, and low to very	low RQD's. The current slope shows high	frequency of dikes and minor raveling along	weathered joints. Rounding required in highly	weathered top section.	Nearby boring shows deep weathering,	potentially adverse jointing, and low to very	low RQD's. The current slope shows high	frequency of dikes and minor raveling along	weathered joints. Rounding required in highly	weathered ton section.
L					High	(crea	for n	redn	control.	Near	pote	RQI	rave	need	Heav	section.	Near	poter	RQL	frequ	alon	redu	Near	pote	low	frequ	weat	weat	Near	poter	low]	frequ	weat	West
	Shrink/Swell	Factor			15% swell					15% swell							15% swell						15% swell						15% swell					
	Rec'd Max.	Cutslope	Ratio	(V:H) ¹	2:1		_			2:1							2.1					-	2:1						2:1					_
	Existing	Cutslope	Height	Ē	3			-		3											•		3			•	•		3	•	<del></del>		-	-
	Existing	Slope	Ratio	(V:H)	1.5:1 – 1:1		-			2:1 – 1:1							2:1-1:1						2:1					-	2:1 - 1.5:1					
	Degree of	Weathering	·		HW - MW	•		-		HW - MW.			-				HW-MW	=				:	HW-MW		-				HW-MW				,	
	Material	Type	•		DG over	weathered	granitic rocks	with quartz	dikes	DG over	weathered	granitic rocks	with quartz	dikes			DG over	weathered	granitic rocks	with quartz	dikes		DG over	weathered	eranitic rocks	with quartz	dikes		DG over	weathered	granitic rocks	with quartz	dikes	
	Approximate	Stationing	)		305+010 to	305+100	Thru-cut			305+140 to	305+200	Thru-cut		_			305+240 to	305+300	Thru-cut				305+320 to	305+570	Thru-cut				305+635 to	305+720	Thr	cut/cutslope	•	

Baufista Canyon Road CA PFH 224-1(1)

Table 6-1. Existing and proposed cutslopes based on interim 1 site investigation, CA PFH 224 Bautista Canyon (cont'd.).

Comments on Recommended Cutslope Ratios	Nearby boring shows moderate weathering after a few meters, moderately adverse jointing potential, and low to moderately high RQD's. The current slope shows high frequency of minor dikes and weathering along favorably oriented joints (dipping into the cut). Rounding required in highly weathered top section.	Nearby boring shows moderate weathering after a few meters, moderately adverse jointing potential, and low to moderately high RQD's. The current slope shows high frequency of minor dikes. Several isolated failure planes exist, daylighting into the cut. Rounding required in highly weathered top section.	Existing cut shows weathered material standing well at 2:1. No failure planes are evident in the cut suggesting 2:1 slope will work well in fresh rock cut. Rounding required in highly weathered top section.	Nearby boring shows moderate weathering after a few meters, moderately adverse jointing potential, and low to moderately high RQD's. The current slope shows high frequency of minor dikes and weathering along favorably oriented joints (dipping into the cut). Material is grading towards a harder quartz diorite in this area. Rounding required in highly weathered top section.	Steep existing cut and presence of stronger diorite materials suggests 2:1 slope ratio will work well at this location. Minor rounding required in highly weathered top section.
Shrink/Swell Factor	.15% swell	15% swell	15% swell	15% swell	15% swell
Rec'd Max. Cutslope Ratio (V:H) ¹	2;1	2:1	2:1	2:1	2:1
Existing Cutslope Height (m)	9	4	4	4	2
Existing Slope Ratio (V:H)	2:1 – 1.5:1	2:1 – 1:1	2:1 - 1.5:1	3:1 – 1:1	4:1 – 2:1
Degree of Weathering	нw - мw	HW - MW	HW - MW	HW - MW	HW - MW
Material Type	DG over weathered granitic rocks with quartz dikes	DG over weathered granitic rocks with quartz dikes	DG over weathered granitic rocks with quartz dikes	DG over weathered granitic rocks with quarzz dikes	DG over weathered granitic rocks with quartz dikes
Approximate Stationing	305+720 to 305+890 Thru- cut/cutslope	305+960 to 306+080 Thru- cut/cutslope	306+150 to 306+240 Thru- cut/cutslope	306+240 to 306+495 Thru-cut	306+530 to 306+600 Thru-cut

Table 6-1. Existing and proposed cutslopes based on interim 1 site investigation, CA PFH 224 Bautista Canyon (cont'd.).

Comments on Recommended Cutslope Ratios	Proposed alignment deviates greatly from the existing roadway at this location. Boring indicates foliated gneiss throughout with substantial structure, possibly creating wedge block or planar failures within oversteepened slopes. Moderate to low RQD's prevalent throughout the recovered section. Nearby cuts in this material are standing well at 2:1, but do not show high joint density. Foliation and schistosity in the area is greater than 2:1 dip.	Very little outcrop visible in this area, requiring aditional subsurface investigation. Assumed to be highly jointed granitic material, due to surface boulder distributions. May be able to steepen cuts once joint orientations are known.	Very little outcrop visible in this area, requiring additional subsurface investigation. Assumed to be highly jointed granitic material, due to surface boulder distributions. May be able to steepen cuts once joint orientations are known.	Very little outcrop visible in this area, requiring additional subsurface investigation. Assumed to be highly jointed granitic material, due to surface boulder distributions. May be able to steepen cuts once joint orientations are known.
Shrink/Swell Factor	15% swell	15% swell	15% swell	15% swell
Rec'd Max. Cutslope Ratlo (V:H) ¹	2:1	2:1	2:1	2:1
Existing Cutslope Height (m)	1	8	2	2
Existing Slope Ratio (V:H)	1:1 - flat	1:1 – 1:1.5	1:2	1:1.5
Degree of Weathering	HW - SW	нм - мм	HW - MW	нм - мм
Material Type	DG over weathered gneiss	DG over weathered granitic rocks	DG over weathered granitic rocks	DG over weathered granitic rocks
Approximate Stationing	306+905 to 307+180 Thru-cut	307+350 to 307+450 Cutslope	307+460 to 307+590 Thru- cut'cutslope	307+600 to 307+755 Thru- cut/cutslope

Table 6-1. Existing and proposed cutslopes based on interim site investigation, CA PFH 224 Bautista Canyon (cont'd.).

Comments on Recommended Cutslope Ratios	Very little outcrop visible in this area, requiring additional subsurface investigation. Assumed to be highly jointed granitic material, due to surface boulder distributions. May be able to steepen cuts once joint orientations are known.	Very little outcrop visible in this area, requiring additional subsurface investigation. Assumed to be highly jointed granitic material, due to surface boulder distributions. May be able to steepen cuts once joint orientations are known.	Very little outcrop visible in this area, requiring additional subsurface investigation. Assumed to be highly jointed granitic material, due to surface boulder distributions. May be able to steepen cuts once joint orientations are known.	Very little outcrop visible in this area, requiring additional subsurface investigation. Assumed to be highly jointed granitic material, due to surface boulder distributions. May be able to steepen cuts once joint orientations are known.
Shrink/Swell Factor	15% swell	15% swell	15% swell	15% swell
Rec'd Max. Cutslope Ratio (V:H)	2:1	2:1	2:1	2:1
Existing Cutslope Height (m)	NA	NA	NA	\$
Existing Slope Ratio (V:H)	1:1 – 1:2	1:1	1:1 – 1:2	1:1
Degree of Weathering	HW-MW	HW – MW	HW MW	HW MW
Material Type	DG over weathered granitic rocks	DG over weathered granitic rocks	DG over weathered granitic rocks	DG over weathered granitic rocks
Approximate Stationing	307+790 to 308+230 Thru- cut/cutslope	308+240 to 308+360 Thru- cut/cutslope	308+380 to 308+600 Thru- cut/cutslope	308+740 308+740 Thru-cut

¹ Revegetation locations have not been fully defined yet. Cuts shown for possible revegetation with flatter slopes are preliminary.

### 7.0 REFERENCES

AASHTO, 1996, <u>Standard Specifications for Highway Bridges</u>, 16th edition, American Association of State Highway and Transportation Officials, Washington, DC, 749 pp.

CFLHD Materials Branch, 1995, "Preliminary Investigation, CA PFH 224-1(1), Bautista Canyon Road, San Bernardino National Forest, April 1995 – Report 95-08," prepared by W. Folkman, Field Exploration Supervisor.

CFLHD Geotechnical Group, 2001, "Preliminary Geotechnical Observations and Recommendations for New Road Alignment Through Bautista Canyon Following On-Site Alignment Review – October 31, 2001," submitted by B. Rivers, Geotechnical Engineer.

Kleinfelder, Inc., 2003, "Geotechnical Data Report, Bautista Canyon Road, Riverside County, California," Redlands, CA.

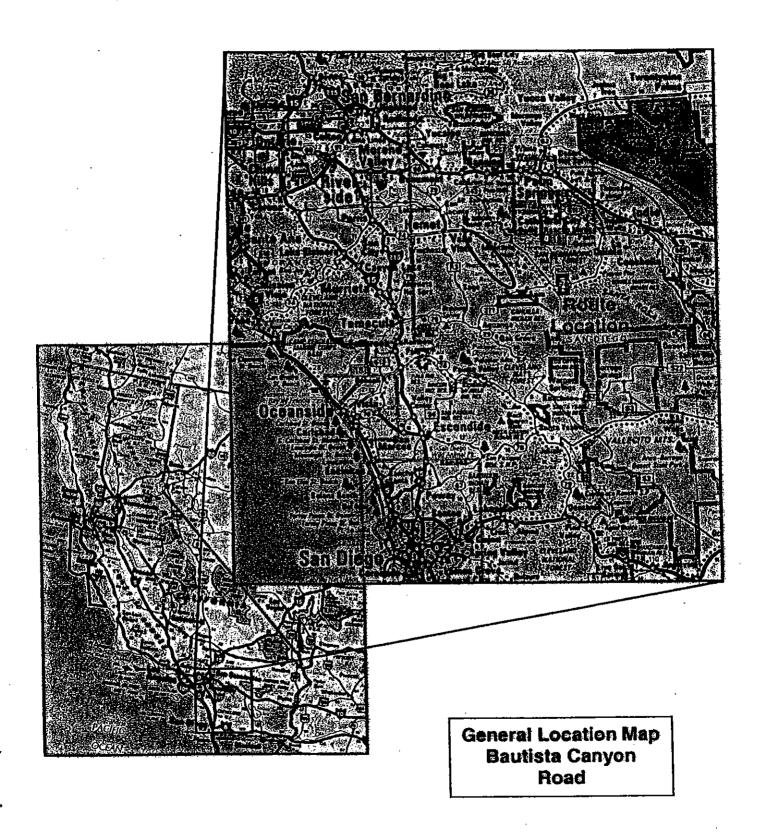
Mualchin, L., 1996, "A Technical Report to Accompany the CalTrans California Seismic Hazard Map 1996 (Based on Maximum Credible Earthquakes)," California Dept. of Transportation Engineering Service Center, Office of Earthquake Engineering, Sacramento, CA, July 1996, 64 pp.

Nutt, R.V., et al, 1996, Improved Seismic Design Criteria for California Bridges: Provisional Recommendations," Publication ATC-32, Applied Technology Council, Redwood City, CA, Contract Report for California dept. of Transportation, 213 pp.

Pierson, L.A., C.F. Gullixson, and R.G. Chassie, 2001, <u>Rockfall Catchment Area Design Guide</u>, Final Report SPR-3(032), Oregon Dept. of Trans., Salem, OR, 78 pp.

### Appendix A

**Location Maps** 



### **Seismic Refraction Surveys**

Seismic refraction surveys are often used to enhance subsurface geotechnical investigations where laterally discontinuous soil and rock units are anticipated and/or drilling access may be physically or economically limited. Refraction surveys can provide quick and affordable subsurface characterization over large areas, providing both strata characterization and rock mass physical parameters useful in developing construction alternatives. However, the method does rely on several simplifying assumptions the user should be aware of, limiting its application in some settings.

### Conducting the Survey

Seismic refraction involves placing a line of regularly spaced sensors (geophones) on the surface and measuring the relative arrival time of seismic energy transmitted from a specified source location. Refraction data are recorded in the field using a portable seismograph, multiple geophones (generally 12 per line), a repeatable seismic source, and a power source. For example, a 24-channel Geometrics SmartSeis seismograph is used for data collection and display by CFLHD. Geophones, generally <15Hz, are vertically implanted in the ground at a predetermined spacing (5-6 m) to record travel times and amplitude of the seismic energy traveling through the earth. Typical seismic sources include such things as a sledgehammer striking a metal plate, shotgun source (e.g., Seisgun), or possibly light explosive charges. Sledgehammer sources are generally used for depths less than 10-15 m; whereas explosives may be required in soft ground conditions for depths up to 30 m. Seismic sources generate both compression (P) and shear (S) waves and, although either may be used for subsurface imaging, P waves are preferred since they are not absorbed by saturated soil units (shear waves cannot transmit through water). Seismic energy travels with a compression velocity that is characteristic of the density, porosity, structure, and water content of each geologic layer.

The design of a seismic refraction survey reflects the anticipated soil/rock velocities to be encountered, overburden depths to be interrogated, and the end-use of the data (e.g., subgrade evaluation or deep foundation design). With this knowledge a plan is developed which defines the data collection parameters best suited for a successful survey. These parameters include the length of the geophone spread, spacing between the geophones, expected "first-break" arrival times at each of the geophones, and the best locations for off-end shots. Normally, five seismic source locations are selected for each seismic spread; one at each end of the spread (forward and reverse shots), one at a predetermined distance from each end of the spread (off-end shots), and one between the two centermost geophones within the spread (center shot). Multiple shot points permit improved delineation of soil/rock interfaces throughout the depths covered by the survey.

Data processing and interpretation at CFLHD is conducted using the SeisImager interactive refraction interpretation code. Using this software, seismic refraction data is refined, analyzed, and interpreted using either the *intercept-time term* inversion method or the *tomographic* inversion method. If the time inversion method is used, the subsurface profile is resolved into distinct layers with average velocities. The tomographic inversion method conducts a similar analysis as that of the time inversion method, but portrays the subsurface

velocity profile as color-coded gradient plot. Both methods are equally useful for identifying key subsurface units and their distribution along the survey.

Seismic refraction surveys are commonly used to characterize:

- Thickness and lateral continuity of specific soil/rock units;
- Depths to competent subsurface layers or the soil/rock interface; and
- Absolute soil/rock unit velocities for estimating material rippability.

The color-coded sectional plots (shown in this appendix) represent the subsurface velocity distribution — which may or may not represent the distribution of material types. Saturated soil zones, localized differences in soil density, and increased frequency of jointing within a given rock unit are all examples of structural features within a rock or soil type that may substantially alter the velocity at that location. As shown in the velocity "key", presented at the beginning of the survey profiles, a particular velocity can represent more than one rock or soil setting, largely influenced by the presence of structures. For example, a moderate to dense sandy soil may have a similar velocity to a highly jointed and weathered granite rock mass. Successful interpretation requires correlation to nearby borings or surface outcrop maps. Seismic surveys are not intended to supplant more traditional subsurface sampling investigations, but aid in quickly and economically extending subsurface characterization over larger areas — "filling-in" the gaps between discrete borings.

### Limitations of the Method

A restrictive limitation of seismic refraction is that each of the successively deeper refractors (soil/rock layers) must have a higher velocity than the one above. This limitation is not generally restrictive when attempting to characterize bedrock depths (deeper rock units almost always have higher velocities); however, situations do arise where overlying soil or rock units have higher velocities than the lower units (e.g., saturated clays over loose sands, or volcanic extrusives over sedimentary rock). For this reason, seismic refraction surveys should always be correlated to subsurface borings to determine applicability of the results.

Another restriction involves imaging in saturated soils – seismic energy is transmitted through the saturated soil mass at the velocity of water (1,400-1,600 m/s), not the velocity of the unsaturated soil. If saturated soils overlie weak rock units, or strong units with frequent discontinuities (e.g., highly jointed granite), the boundary may become indistinguishable.

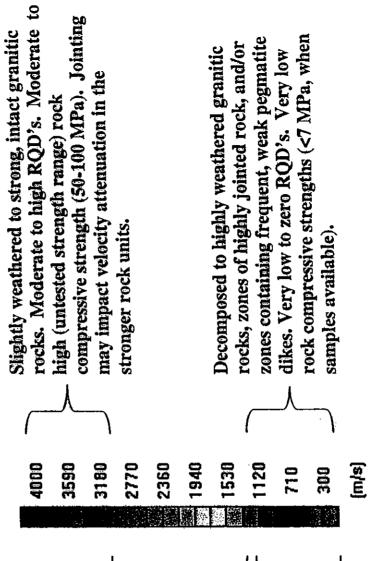
Background seismic noise, propagating through both the ground and air (e.g., commuter traffic, construction equipment, nearby blasting operations, moving water, wind, etc.), may interfere with data collection, obscuring refraction survey arrival times and making analysis and interpretation difficult to impossible. Oftentimes, this problem can be overcome by employing various filtering techniques, "stacking" the source signals, or by using larger impact sources. In general, "noisy" data leads to greater uncertainty in data refinement and interpretation.

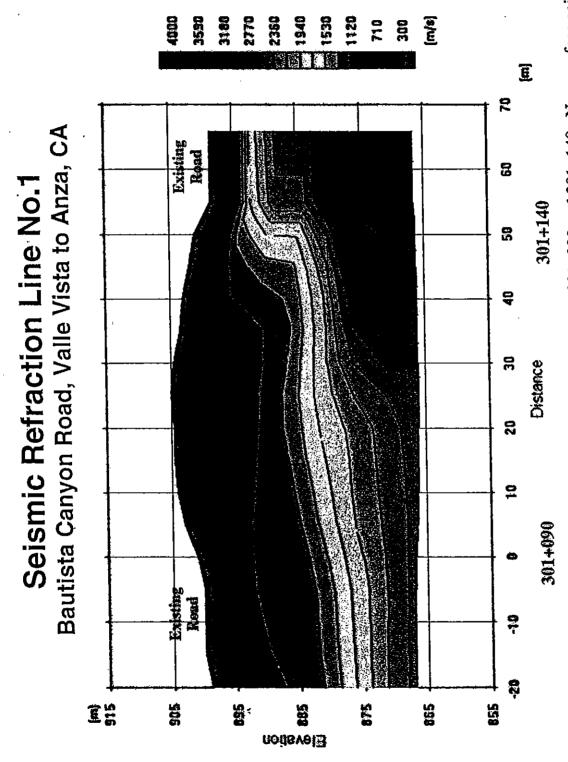
Seismic refraction results are presented as representing subsurface conditions in a vertical plane directly beneath the survey line. While for most cases this may be true, source-to-receiver raypaths may actually be traveling out of this vertical plane, through nearby higher-velocity materials (e.g., in the case of steeply dipping strata). In discontinuous ground, or settings with highly variable deposition, seismic surveys could result in inaccurate subsurface profiles.

### Bautista Canyon Road, Valle Vista to Anza, CA Seismic Refraction Lines

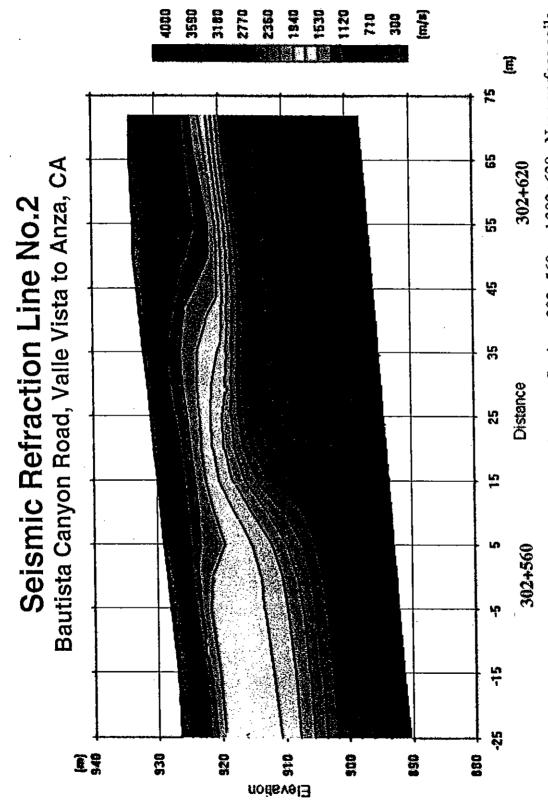
Slightly to highly weathered granitic rocks, zones of moderately jointed intact rock, and/or zones containing pegmatite dikes. Very low to moderate RQD's. Very low to moderate rock compressive strengths (7-50 MPa, when samples available). Lower end includes moderately dense to dense alluvial silts and sands, including saturated soils.

Moderately dense to dense alluvial soils (silts, sands, cobble and boulder materials).



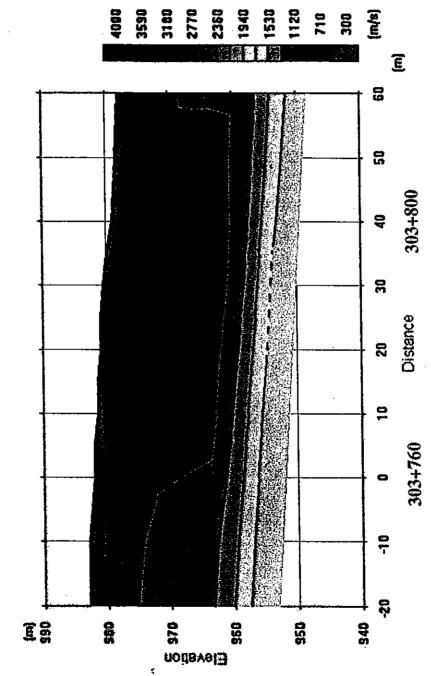


exposed in the immediately adjacent road cut included cobble and boulder alluvium within a red silt and sand matrix Line 1 was conducted along the proposed alignment between Stations 301+090 and 301+140. Near-surface soils over a highly weathered granitic rock base.



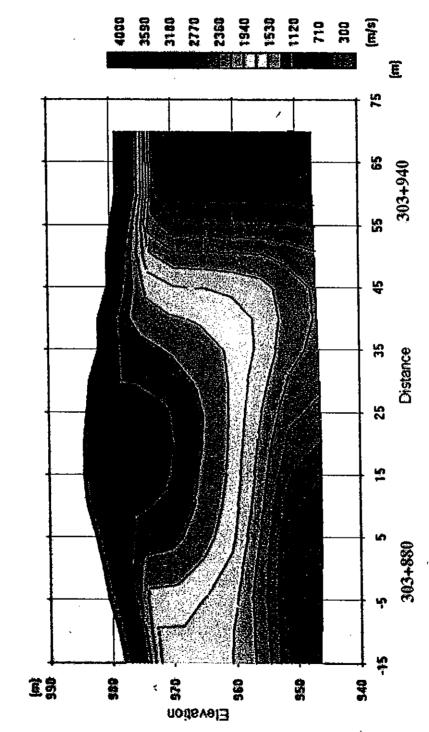
weathered granitic rock base. The proposed alignment deviates significantly from the existing road at this location, exposed in nearby road cuts included cobble and boulder alluvium within a red silt and sand matrix over a highly Line 2 was conducted along the proposed alignment between Stations 302+560 and 302+620. Near-surface soils so direct correlation to exposed cuts is not possible.





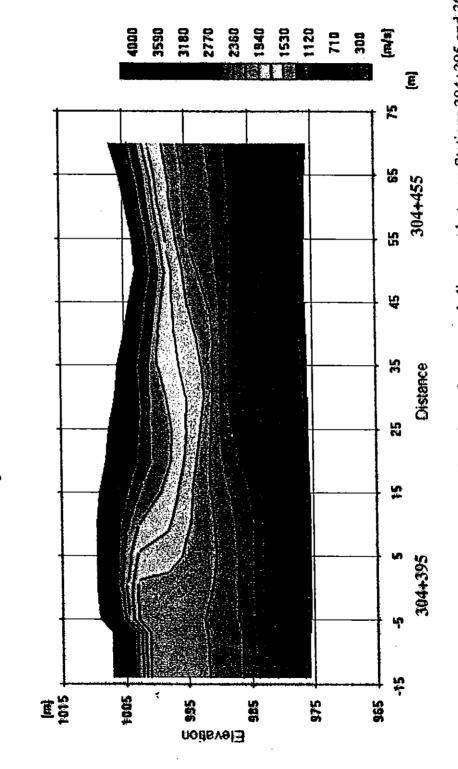
303+800. Near-surface soils exposed in the immediately adjacent road cut included decomposed granitic materials Line 3 was conducted within the planned cut just above the proposed alignment between Stations 303+760 and over a highly weathered granitic rock base. Borings in the area show weak, weathered rock extending 10+ m beneath the surface.

Seismic Refraction Line No.4 Bautista Canyon Road, Valle Vista to Anza, CA



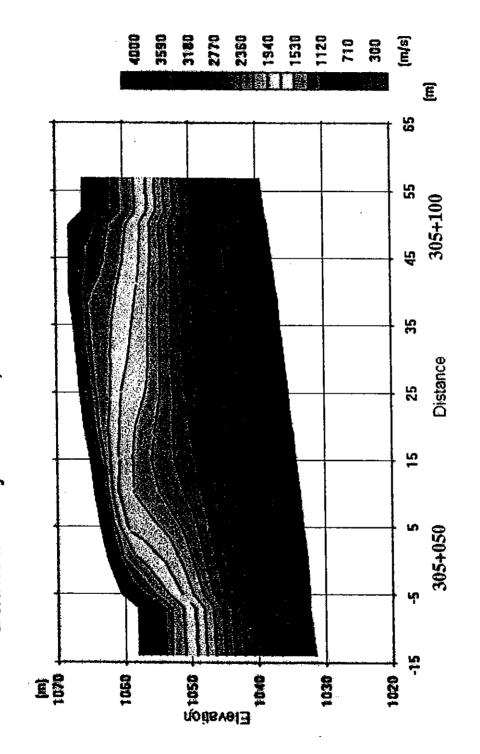
Line 4 was conducted within the planned cut just above the proposed alignment between Stations 303+880 and 303+940. The immediately adjacent road cut included a thin layer of decomposed granitic materials over a variably weathered granitic rock base. The existing cut is standing at an approximate 4:1 slope ratio.

Seismic Refraction Line No.5 Bautista Canyon Road, Valle Vista to Anza, CA



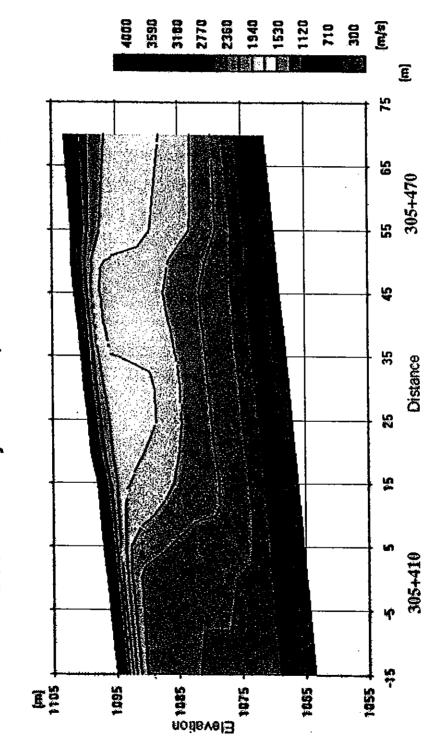
Line 5 was conducted within the planned cut just above the proposed alignment between Stations 304+395 and 304+455. The immediately adjacent road cut included a thin layer of decomposed granitic materials over a variably weathered granitic rock base. The existing cut is standing at an approximate 3:1 slope ratio.

Bautista Canyon Road, Valle Vista to Anza, CA Seismic Refraction Line No.6



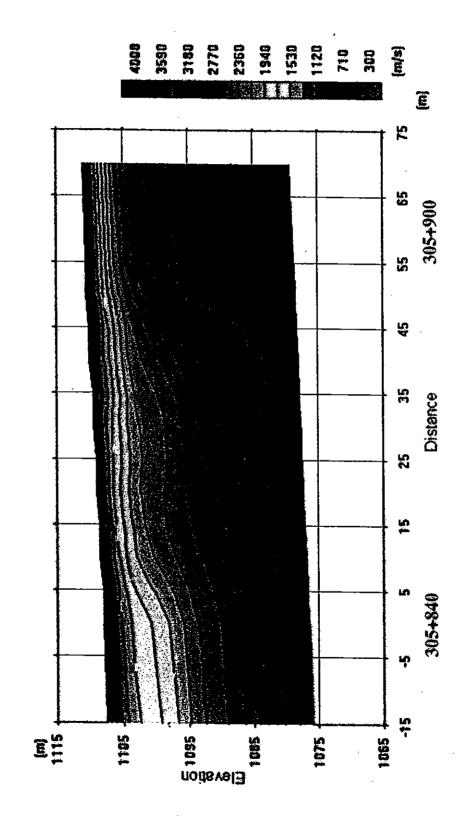
Line 6 was conducted within the planned cut just above the proposed alignment between Stations 305+050 and 305+100. The immediately adjacent road cut included a thin layer of decomposed granitic materials over a variably weathered gramitic rock base. The existing cut is standing at an approximate 2:1 slope ratio.

# Seismic Refraction Line No.7 Bautista Canyon Road, Valle Vista to Anza, CA



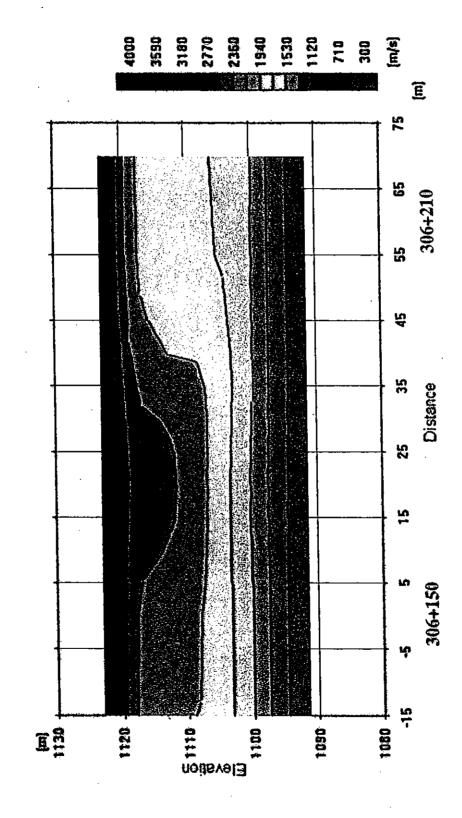
weathered gramitic rock base. The existing cut is standing at an approximate 2:1 slope ratio. Borings in the area show 305+470. The immediately adjacent road cut included a thin layer of decomposed granitic materials over a variably Line 7 was conducted directly on the existing road along the proposed alignment between Stations 305+410 and weak, weathered rock extending 84 m beneath the surface.

Seismic Refraction Line No.8 Bautista Canyon Road, Valle Vista to Anza, CA



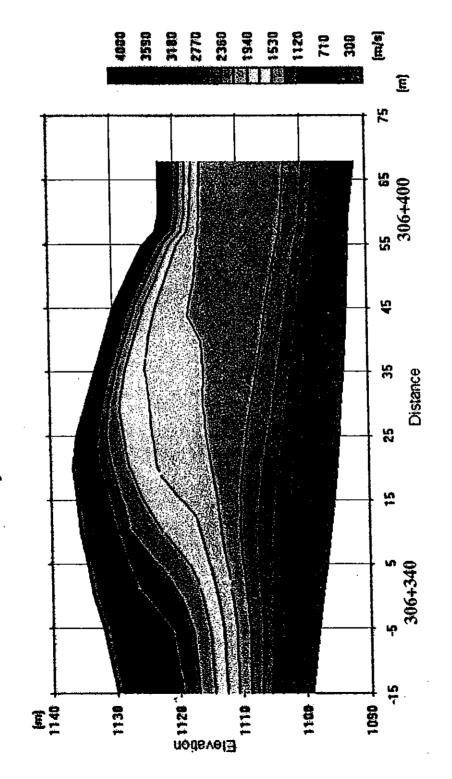
305+900. The immediately adjacent road cut included a thin layer of decomposed granitic materials over a variably weathered granitic rock. The existing cut is standing at an approximate 2:1 slope ratio. Borings in the area show Line 8 was conducted directly on the existing road along the proposed alignment between Stations 305+840 and weak, weathered rock extending 8+ m beneath the surface.

# Seismic Refraction Line No.9 Bautista Canyon Road, Valle Vista to Anza, CA



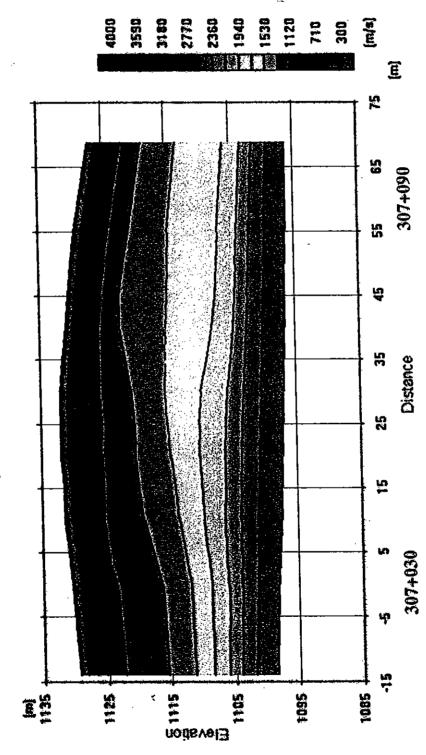
306+210. The immediately adjacent road cut included a thin layer of decomposed granitic materials over a variably Line 9 was conducted directly on the existing road along the proposed alignment between Stations 306+150 and weathered granitic rock base. The existing cut is standing at an approximate 2:1 slope ratio. Borings in the area show weak, weathered rock extending 8+ m beneath the surface.

Seismic Refraction Line No.10 Bautista Canyon Road, Valle Vista to Anza, CA

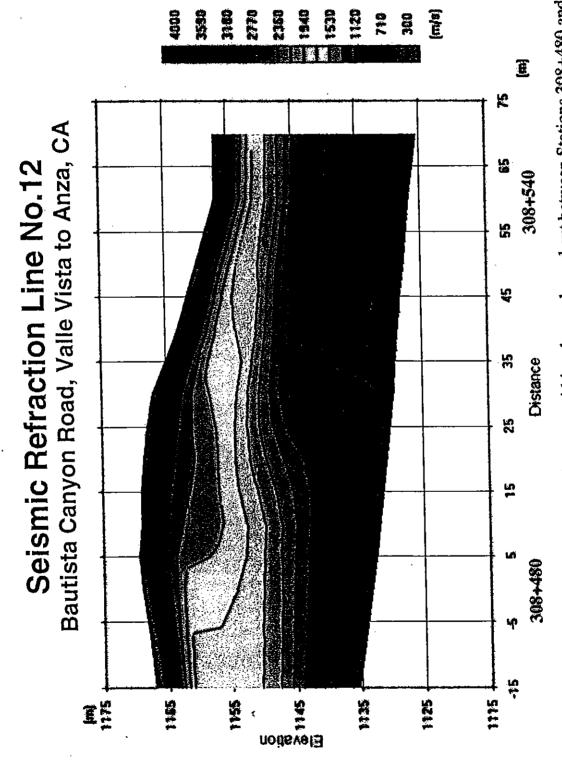


306+400. The immediately adjacent road cut included a thin layer of decomposed granitic materials over a variably weathered granitic rock base. The existing cut is standing at an approximate 2:1 slope ratio. Borings in the area Line 10 was conducted within the planned cut above the proposed alignment between Stations 306+340 and show weak, weathered rock extending 8+ m beneath the surface.

# Seismic Refraction Line No.11 Bautista Canyon Road, Valle Vista to Anza, CA

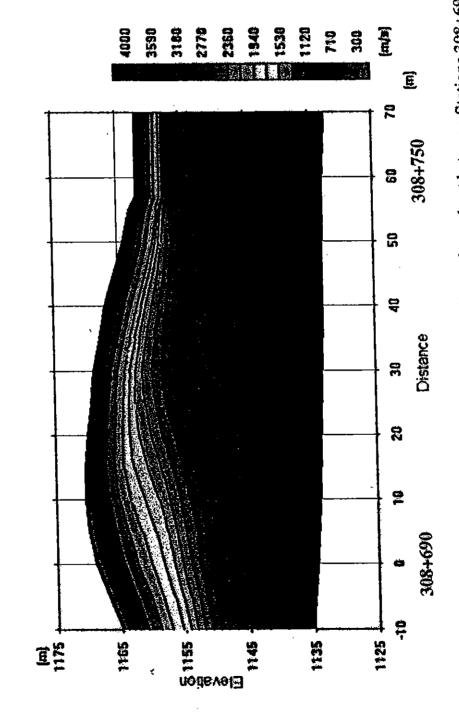


standing at an approximate 2:1 slope ratio. Borings in the area show weak, weathered and fractured rock extending Line 11 was conducted along the proposed abignment above a large planned through-cut between Stations 307+030 and 307+090. The alignment deviates greatly from the existing road at this bocation, but it is likely that a thin layer of decomposed granitic materials overlies a variably weathered granitic rock base. Existing cuts in the area are 104 m beneath the surface



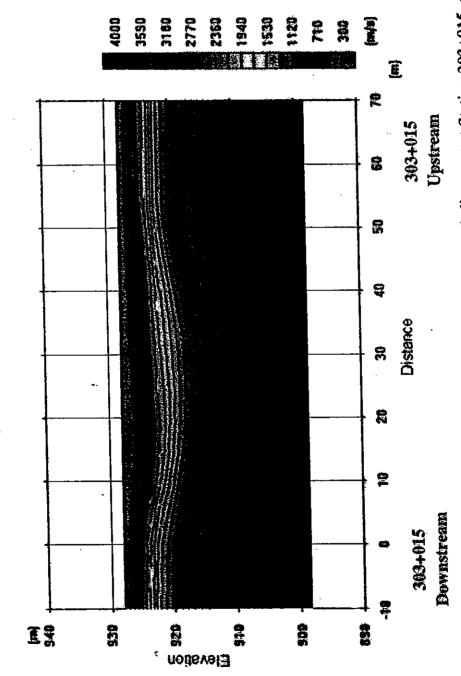
308+540. The immediately adjacent road cut included a thin layer of decomposed granitic materials over a variably weathered granitic rock base. The existing cut is standing at an approximate 2:1 slope ratio. This area is subject to Line 12 was conducted along the proposed alignment within a large planned cut between Stations 308+480 and more jointing structure than the early stages of the project.

# Seismic Refraction Line No.13 Bautista Canyon Road, Valle Vista to Anza, CA



308+750. The immediately adjacent road cut included a thin layer of decomposed granitic materials over a variably weathered granitic rock base. The existing cut is standing at an approximate 2:1 shope ratio. This area is subject to Line 13 was conducted along the proposed alignment within a large planned cut between Stations 308+690 and more jointing structure than the early stages of the project.

# Seismic Refraction Line No.14 Bautista Canyon Road, Valle Vista to Anza, CA



Line 14 was conducted along Bautista Creek perpendicular to the proposed alignment at Station 303+015, crossing at the stages of weathering exist throughout the area. Seismic data was acquired after a substantial rainfall, with the alluvial approximate location of the planned bridge pier. Rock outcrops along the creek indicate granitic materials in various debris and creek bed sands drained near-surface, but assumed saturated at depth.



Figure C1. Seismograph setup on Line 1 for rapid refraction survey data collection and on-screen data quality assessment.



Figure C2. Line 1 at Station 301+090 to 301+140, located on the proposed alignment.

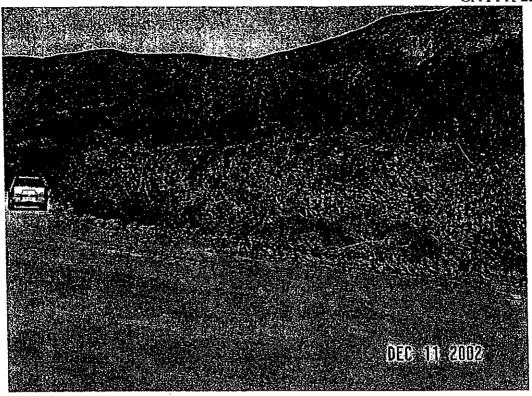


Figure C3. Silty sand and cobble alluvium at Line 1. Line 1 runs across the top of this cut 20 m up from existing centerline.



Figure C4. Line 2 at Station 302+560 to 302+620, located on the proposed alignment.



Figure C5. Line 3 at Station 303+760 to 303+800, located in cut above proposed alignment.

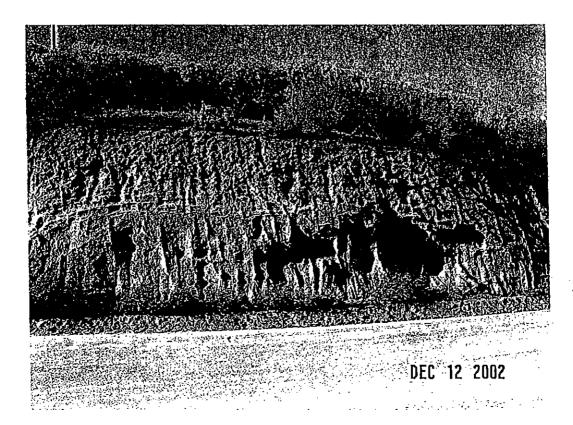


Figure C6. Silty sand and cobble alluvium over decomposed rock at Line 3. Survey line is 20 m above the cut crest.



Figure C7. Line 4 at Station 303+880 to 303+940, located in cut above proposed alignment.



Figure C8. Weathered, foliated diorite with felsic pegmatite dikes at Line 4. Survey line is 10 - 15 m above the cut crest.

### Appendix K Mitigation, Monitoring, and Reporting Plan

Mitigation, Monitoring, and Reporting Plan

To be inserted here